

Mr. Pearson
Mr. Mal
THE CHEMIST AND DRUGGIST

MARCH 25, 1933

The

CHEMIST AND DRUGGIST

Established 1859

28 Essex Street, Strand, London, W.C.2.

Registered as a Newspaper

No. 2772.
VOL. CXVIII.

MARCH 25, 1933

Annual Subscription (with
Diary) 20/- Single Copies 9d.

The good-night drink that becomes tomorrow's energy
NATIONALLY ADVERTISED

*The public will value your
recommendation of*

BOURN-VITA

A SCIENTIFIC COMBINATION OF NEW LAID EGGS, FRESH FULL CREAM MILK FROM BRITISH FARMS
BRITISH MALT AND CHOCOLATE



Further Success in
Product by

Bourn-Vita



EVERY mother wants to preserve the youthful beauty and health of her child's hair. Obviously if you can help her do it, you add another regular customer to your books. That is why the new Camilatone Children's Beauty Shampoo makes a special appeal to you.

For here is a shampoo made to meet this very need. A shampoo that cleanses and nourishes young hair in Nature's own way, *retaining all its natural transparency and burnished tones.*

And remember it is a Camilatone product. This is an important factor which mothers everywhere have been quick to appreciate, especially those who already *know* that Camilatone revitalises and beautifies hair as nothing else can.

Sell mothers the new Camilatone Children's Beauty Shampoo and capture the valuable children's market that awaits you in your district.

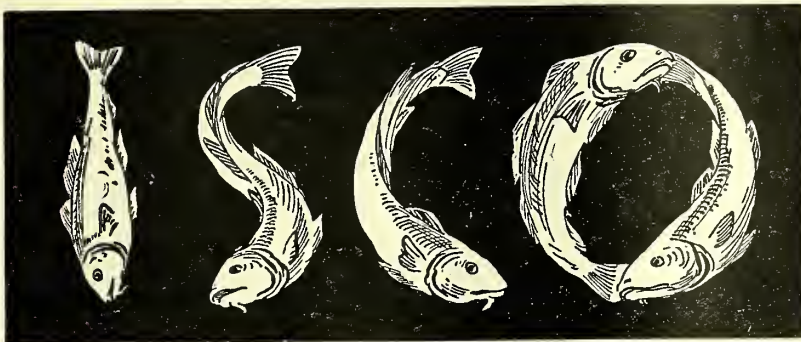
Write to us on your own Trade letter heading and we shall be pleased to send you a sample packet of Camilatone Children's Shampoo together with Trade Terms.

Camilatone

CHILDREN'S *Beauty* SHAMPOO 4^p

CAMILATONE LTD., 59, OAK GROVE, CRICKLEWOOD, LONDON, N.W.2.

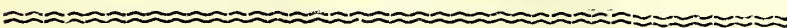
FINEST MEDICINAL NON-FREEZING



BRAND COD LIVER OIL



BUY BRITISH

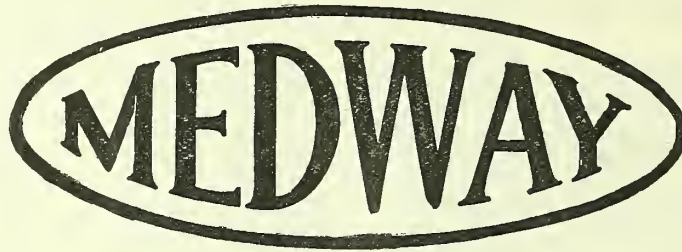


Selected and specially graded. High Vitamin Test

ISAAC SPENCER & CO.

(ABERDEEN) LIMITED
ALBERT QUAY
ABERDEEN, SCOTLAND





CORRUGATED PAPERS

(in rolls up to 78 inches wide)

PIECES, BOARDS & BOXES

*All corrugated productions
are manufactured from our own British made
strawpaper, produced from British
raw materials only.*

The Medway Corrugated Paper Co. Ltd.

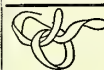
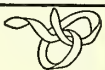
London:
Blackfriars House,
New Bridge St.
E.C.4.

Telephone: Central 8482
Telegrams: "Corrugated
Ltd, London."



Provincial:
Tovil,
Maidstone,
Kent.

Telephone: Maidstone 4168
Telegrams: "Corrugated
Tovil."





It costs less to increase sales



MONO
The Modern Salesman

MONO Containers are being used in ever-increasing numbers for packing pharmaceutical products such as pills, powders, beauty preparations and all semi-solids. Fitted with a simple screw-on cap—a guaranteed protection until the last of the contents has been used, these attractive Containers will give your products improved appearance at considerably decreased cost.

**MONO
CONTAINERS
LIMITED,
PARK ROYAL,
LONDON,
N.W. 10**

Telephone :
Willesden 0900-01.

MONO

Stability
Accuracy
Superiority



ESTD

1833

MANUFACTURING
CHEMISTS

Staff Allen S POLICY THROUGHOUT A CENTURY OF PROGRESS

EXTRACTS

TINCTURES

POWDERED GUMS

GALENICALS

RESINS

Since we commenced drug milling and spice grinding in 1833, and later developed the manufacture of pharmaceutical preparations, we have effected great changes in our methods and plant, *but there has been no change in our POLICY* which is to place quality of product above all other considerations

100 YEARS OF SERVICE
1833 _____ 1933

STAFFORD ALLEN & SONS LTD.
COWPER STREET · FINSBURY · LONDON · E.C.2

INDEX TO ADVERTISERS

Addis, R., & Son (Tooth Brushes) 12	Burroughs Wellcome & Co. (Insulin) 31	Goodall, Backhouse & Co. (Waterglass) 28
Allen, Stafford, & Sons, Ltd. (Ex- tracts, &c.) 4	Bussell, T. C. (Bottle Caps)..... xxvi	Grout & Co., Ltd. (Crêpe Bandages) Leader Page
Anglo - French Drug Co., Ltd. (Bivatol, &c.) viii	Cadbury Bros., Ltd. (Bourn-Vita) ...Cover	Guest, T., & Co., Ltd. ("Vox" Pastilles) 24
Anzora Perfumery Co., Ltd. (Anzora Cream, &c.) 16	Calvert, F. C., & Co., Ltd. (Pumice Soap) 12	Hackett, S. E. (Film Overstocks) Col. Supp.
Armstrong Cork Co., Ltd. (Corks) ...xxiii	Camilatone, Ltd. (Children's Shampoo) Cover	Hall, Forster, & Co., Ltd. (Vaporisers) 26
Arnfield, J. C., & Sons, Ltd., (Rasp- berry Vinegar, &c.) ii	Carnegie Bros., Ltd. (Chemicals, &c.) iii	Haller Laboratories, Ltd. (Danysz Virus) xxvi
Aspro, Ltd. (Aspro) xlii	Carter Bros. (Atlas "Kattikure") viii	Hampshire, F. W., & Co. (1927) Ltd. (Snowfire Cream) xiv
Association of Manfg. Chemists, Ltd. Col. Supp.	Castle Huskisson, Ltd. (Tablets, &c.) vi	Hanson, Fredk. (British Bottles) xxiv
Ayrton-Graham, Ltd. (Shopfittings) ... 22	Cataline Co. (Veterinary Medicines) ... 22	Hanson, W., & Sons, Ltd. (Bottles)... xxvii
Baker Metal Stopper Co., Ltd. (Screw Caps, &c.) xxv	Christy, T., & Co. (Cachet Machines, Cucumel, &c.) 26 & 32	Harrison, A., & Sons, Ltd. (Printing)... 24
Barnett, Jack L., Ltd. (Bottles) 25	Clark, Cicero S. (Cachets)..... 26	Harvey & Co. (Dublin), Ltd. (Veteri- nary) 22
Bayer Products, Ltd. (Pharmaceutical Products) iv	Clark, S. F. (Valuer, &c.) Col. Supp.	Hay, Wm., Ltd. (Olive Oil, &c.)..... v
Beatson, Clark & Co., Ltd. (Bottles)... xxvi	Constipon Tablets x	Horne-Morton, A. 12
Beattie, Hunter (H.B.T. Flu' Pills)..... vi	Crookes Laboratories (Halibut Liver Oil, &c.) xvi	Hornby & Co. (Hull), Ltd. (Tins)..... 26
Beechams Pills, Ltd. (Pills and Powders) xi	Cussons, Sons, & Co., Ltd. (Shaving Cream) 15	Ingram & Royle, Ltd. (Mineral Waters) xvii
Bell, John, Hills & Lucas, Ltd. (Pharm. Preps.) Leader Page	Dalmas, A. de St., & Co., Ltd. (Drug- gists' Sundries) 26	International Chemical Association (Renipap) xviii
Benger's Food, Ltd. (Foods) 32	Davenport, J. T., Ltd. (Chlorodyne) ... xii	Jackson, Ernest, & Co., Ltd. (Glossettes) v
Bennett, Briant & Co. (Handkerchief Puffs) 16	Dearborn (1923), Ltd. (Toilet Specialities) 14	Josephs, Philip, & Sons, Ltd. (Shop- fittings) 20 & Col. Supp.
Berdoo & Fish, Ltd. (Valuers, &c.) Col. Supp.	Dee Oil Co., Ltd. (Petroleum Jelly) x	Kalisky, S. (Aldgate), Ltd. (Wanie Blades) 19
Berman, A., & Sons ("Burmex") ... xx	Dudley & Co., Ltd. (Showcases) xxii	Kent, G. B., & Sons, Ltd. (Brushes) 18
Betts & Co., Ltd. (Collapsible Tubes) xxv	Edge, W., & Sons, Ltd. (Drummer Dyes) xxii	Lauder, L. T. (Bottle Filling Machines) 20
Bidwell, Bidwell & Co., Ltd. (Tooth Brushes, &c.) 18	Ellams & Co. (Leaflets) 26	Lee, R. (Manicure Requisites) 26
Blackie, R. (Spun Ointments) x	Elmesan (Loudon), Ltd. (Meta Solid Fuel) xiv	Lewis, H. K., & Co., Ltd. (Books) 25
Blythe, W., & Co., Ltd. (Chemicals) ... iv	Emkolene Manfg. Co. (Pile Remedy) viii	Lincoln and Midland Counties Drug Co., Ltd. (Bonus Offer) vi
Bob Martin, Ltd. (Dog Remedies) 23	Eucryl, Ltd. (Dentifrices) 14	Liverpool School of Pharmacy 26
Box, W. H. (Box's Pills) xii	Evans Sons Lescher & Webb, Ltd. (Sponges) 13	London College of Pharmacy 25
Brierley, John (Valuer, &c.)..... Col. Supp.	Fairchild Bros. & Foster ("Holadin") Leader Page	
British Diamalt Co. (Extract of Malt) xvi	George, Ernest J. (Valuer, &c.) Col. Supp.	
Brown & Son, Ltd. (Stills) xxii	Glaxo Laboratories (Glucose-D.) 6	
Burrough, James, Ltd. (Alcohol) Leader Page		

[Continued overleaf.]

Elasto

Regd.

*For all Diseases
of the Circulatory System*

Recommend "ELASTO" for Varicose Veins, Ulcers, Eczema, Swollen Legs, Phlebitis, Thrombosis, Muscular Weakness, Bad Legs, Piles, Prolapsus, Varicocele, Hardened Arteries, Blood Pressure, Deficient Circulation and kindred ailments.

*Elasto may be relied upon to
give satisfaction. The existing
urgent demand is being steadily
fostered by consistent advertising*
WHY NOT SHOW ELASTO?

Prepared in the Laboratories of
THE NEW ERA TREATMENT CO. LTD.
CECIL HOUSE - HOLBORN VIADUCT
LONDON, E.C.

Full particulars, Showcards, and Leaflets on request.



**Elasto
Nature
Salve**

3/- a box

Wholesale

27/- a doz.

**Elasto
Tablets**

5/- a box
(One month's supply)

Wholesale
45/- a doz.



P.A.T.A.

From your wholesaler

INDEX—cont.

Mandall & Co., Ltd. (Licoricine)	viii	Perken, Son, & Co., Ltd. (Clinical Thermometers)	xxiii	T. P. Co. (Toilet Paper)	26
Martin, Bob, Ltd. (Dog Preparations) ..	23	Perry's Powders, Ltd. (Head Powders) ..	viii	Taylor, John (Cimolite Toilet Preps.) ..	16
Matthews, D., & Son (Shopfittings) ...	26	Potter & Clarke, Ltd. (Wholesale Druggists)	29	Tenz Manfg. Co. (Deodorant Tablets) ..	xviii
Matthews Laboratories, Ltd. (Digitals)	Leader Page	Poulten, Selfe & Lee, Ltd. (Glassware)	xxvi	Thurley, G. E., & Son (Liquid Paraffin)	x
Matthews, S., & Co., Ltd. (Curlicones, &c.)	xiv	Prescriber, The	Leader Page	Tilbury, W. R., & Son (Toothbrushes) ..	18
Maund, F., & Berg, E., Ltd. (Showcases)	26 & Col. Supp.	Proprietary Agencies, Ltd. (Milk of Magnesia)	32	Tomlinson, T., & Son (Valuers, &c.) ..	Col. Supp.
Maw, S., Son & Sons, Ltd.	11	Raleigh Cycle Co., Ltd. (Delivery Cycles)	9	Toogood, Wm., Ltd. (Bottle Filling Apparatus)	21
Mawdsley, D., & Co. (Wholesale Druggists)	1x	Roberts & Sheppey, Ltd. (MelRose) ..	xviii	Town Talk Polish Co. (Liquid Silver Polish)	xxii
May, Roberts, & Co., Ltd. (Sundries)		Robinson & Slons, Ltd. (Boxes)	21	Trade and Technical Press Council ...	8
Midway Corrugated Paper Co., Ltd. (Corrugated Papers, &c.)	2	Rudduck & Co. (Shopfittings) ..Col. Supp.		Treble & Co. (Shopfittings)	26
Midgley & Parkinson, Ltd. (Yeast Preps.)	Leader Page	Rutherford, J., & Co., Ltd. (Locarno Toilet Roll)	xx	Tyrer, T., & Co., Ltd. (Chemicals) ...	ii
Miss Muffet Toilet Paper Co.	xxiii	Sasso, P., & Figli (Olive Oil)	30	United Chemists' Association, Ltd. (Waterglass)	xv
Molson Ionized Iodine Co., Ltd.	xviii	Schutze, F., & Co., Ltd. (Surgical Appliances, &c.)	xxiii	United Glass Bottle Manufacturers, Ltd. (Medical Bottles)	xxviii
Mono Containers, Ltd. (Hygienic Containers)	3	Scruton, O., & Co. (Nurse Harvey's Mixture)	Leader Page	Viscose Development Co., Ltd. (Bottle Capping)	xxiv
Mundet Cork Products, Ltd. (Corks and Stoppers, &c.)	xxvii	Scurr, C. A. (Optical Tuition)	Leader Page	Wagner, R. V. (Bottle Caps)	xxvii
Myers, E. J. (Shopfittings) ..	22 & Col. Supp.	Shadeine Co. (Hair Dyes)	26	Walton, T. H., & Co., Ltd. (Compressed Tablets)	26
Napp, H. R., Ltd. ("Anotal")	vii	Silks Toilet Co. (Preemo Spray)	16	Ward, T., & Sons, Ltd. (Wardonia Razor)	19
National Drug Industries, Ltd. (Pharmaceutical Preparations, &c.) ..	i	Simpkin, A. L., & Co., Ltd. (Barley Sugar)	xii	Washington Chemical Co., Ltd. (Cream of Magnesla)	iii
Neill, J., & Co. (Sheffield), Ltd. ("Eclipse" Razor)	19	Smith, Martin H., Co. (Ergoapiol)	v	White, J. F., & Co. (Kombo)	vii
New Era Treatment Co., Ltd. (Elasto)	5	Smith, T. & H., Ltd. (Alkaloids)	25	White, Tomkins & Courage, Ltd. (Ionones)	iv
Newball & Mason, Ltd. (Waterglass) ..	20	Soho, Ltd. (Cameras)	25	Willows, Francis, Butler & Thompson, Ltd. (B.P. Preparations)	vii
Newton, Chambers & Co., Ltd. (Izal Toilet Rolls)	xxi	Solazzi (Liquorice)	iii	Wood Bros. Glass Co., Ltd. (Eyebaths)	xxvii
Nonspi, Ltd. (Deodorant)	17	Solport Bros., Ltd. (Watersprite Face Cloths)	18	Woolley, J., Sons & Co., Ltd. (Manufacturing Chemists)	10
Norwegian Cod Liver Oil	xix	Southall Bros. & Barclay, Ltd. (Sanitary Towels)	xxiii	Wright, Layman & Umney (1932), Ltd. (Coal Tar Soap)	Cover
Ocean Blades (Great Britain), Ltd. ...	19	Sozol (1924), Ltd. (Egg Preservative) ..	22	Zeal, G. H., Ltd. (Clinicals)	xx
Olley, C., & Sons, Ltd. (Corks)	xxii	Spencer, Isaac & Co. (Aberdeen), Ltd. (Cod Liver Oil)	1		
Orridge & Co. (Valuers, &c.) ..Col. Supp.		Standard Tablet Co. (Quinine Tablets, &c.)	Cover		
Paines & Byrne, Ltd. (Glandular Products)	Leader Page	Sterns, Ltd. (Oils, Petroleum)	xviii		
Parkinsons, Ltd. (Kilkof)	Leader Page	Sturge, J. & E., Ltd. (Precipitated Chalk)	ii		

PLAN A GLUCOSE-D DRIVE

Special display parcels showing on cost 71% profit

This offer closes April 30th

Plan a Glucose-D Drive—NOW! A national advertising campaign is telling the public the value of glucose. We help you to link up by offering—for a limited time only—bonus display-parcels of Glucose-D—on these special terms! Get one of these bigger-profit parcels. Glucose-D, the reinforced glucose—the vitamin glucose—has earned the approval of the medical profession. Co-operate. Display the new show-cards provided with each parcel. Sell Glucose-D.

These special parcels are supplied on the understanding that a display will be made. Show material will be provided. Orders must be sent only to Glaxo Laboratories or to Messrs. Sangers Ltd., Euston Road, London. Parcels not available in Irish Free State.

SPECIAL BONUS PARCEL NO. 1

1½ doz. × 1 lb @ 21/- less 33½%	£	s.	d.
3 × 1 lb. FREE	-	-	-
	£1	4	6

The above sells for	-	-	-	£2	2	0
Showing a profit of	-	-	-	-	17	6
This represents 41.7% profit on turnover or 71.4% " " cost.						

SPECIAL BONUS PARCEL NO. 2

3½ doz. × 1 lb. @ 21/- less 33½%	£	s.	d.
6 × 1 lb. FREE	-	-	-
	£2	9	0

The above sells for	-	-	-	-	£4	4	0
Showing a profit of	-	-	-	-	£1	15	0
This represents 41.7% profit on turnover							
or 71.4% " " cost.							

GLAXO LABORATORIES, 56 Osnauburgh Street, LONDON, N.W.1

SENTIMENT

Sentiment is one of those words which sometimes give us an uneasy feeling, the reason being that it offers an easy approach to the emotional, which we exclude from the business side of things. Whether we object or make a plea for sentiment in business, the fact remains, it is there all the time. The hard-hearted business type exists more perhaps in fiction than in fact. We have recently taken over an old-established business and have noticed a number of letters expressing regret at the breaking of old associations. These illustrate what we have always known, that service and its co-relative, interest, establish not only good business, but good feeling between Retailer and Distributor. May Roberts' organisation has been built, and continues to progress, through an appreciation of these two factors.

MAY ROBERTS & CO., LTD.

7/13 CLERKENWELL ROAD, LONDON, E.C.1

also at

PLYMOUTH :: LIVERPOOL :: DUBLIN

Our reason for repeating the above advertisement is, that we have received such a large number of comments and appreciations of the view expressed

ADVICE TO MANUFACTURERS AND TRADERS.

The Council of the Trade and Technical Press has received representations from advertisers, individually and collectively, with the request that Trade and Technical Journals should draw attention to the wisdom of scrutinising very closely any propositions which may fall under one or other of the following heads :—

(1) Requests for Participation in Composite Pages.

Composite pages generally relate to new public works and undertakings, and no objection can be taken to them when carried out on the proper lines. Any proposal, however, to participate in a composite page should be fully investigated, since it can be used as an indirect means of inducing contractors or sub-contractors to spend money on unprofitable advertisement : for example, the names of the principal undertaking or of directors or officials responsible for the placing of contracts or orders may be put forward as sponsors for the scheme, with the result that, rather than risk offence, the contractor or sub-contractor may agree to participate by giving an advertisement ; and the advertisement may be quite unprofitable to him, since the page may consist of a small amount of editorial and a large number of advertisements, and the advertisements, owing to their specialised character, may not be of interest to the bulk of the readers of the publication.

(2) Requests to Advertise in Handbooks Descriptive of Works or Industrial Undertakings.

While the proprietors of industrial establishments have every right and interest to produce books descriptive of their manufacturing facilities or welfare activities, they should examine with the utmost care any proposal whereby these books are to be produced or supplied to them free or at a reduced price ; since this project can be used as an indirect means of inducing their sub-contractors or other firms to spend money on unprofitable advertisement ; for example, the names of the proprietors of the establishment may be used to bring influence on their sub-contractors or other firms from whom they buy plant and materials, with the result that those firms may thereby be induced to take advertisement space which has no real advertising value for them.

(3) Proposals to Give Free Editorial Write-ups Subject to Purchase of Blocks for Illustrations.

Any proposal to give a free editorial write-up should be carefully examined and enquiries made at the time as to the illustrations and cost thereof ; for the system can be abused by the blocks being made of unnecessarily large proportions and being charged to the customer at more than the normal price of such work.

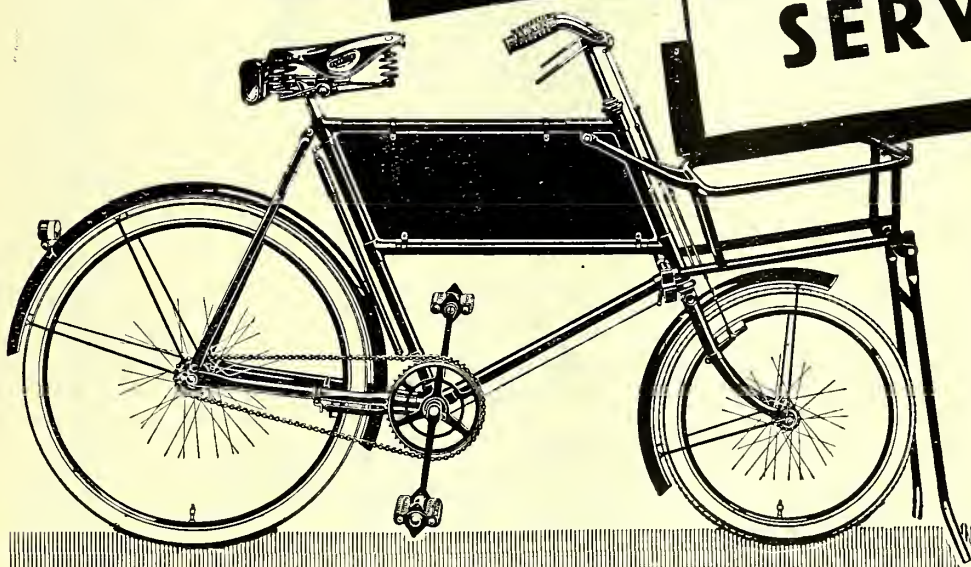
It cannot be too strongly emphasised that firms should examine any such proposals as are mentioned above before they agree to participate. In the case of Items 1 and 2, if they are approached for permission to allow books or special pages to be based on any undertaking in which they are interested, they should be careful to see that their name will in no way be used to bring influence to bear on sub-contractors or firms from whom they purchase.

The Council of the Trade and Technical Press,
E. O. NORTON,
Secretary.

6, Bouverie Street,
Fleet Street,
London, E.C.4.

Chemists!

EXTEND YOUR SERVICE



**The All Steel Raleigh will
increase your CUSTOM
and GOODWILL**

LOW GRAVITY CARRIER

Specially designed for carrying heavy or bulky loads without skidding. An instantly operated stand built into the carrier is an important feature.

£7

or 12 monthly payments of 13s. 3d.
(no deposit).

Basket can be supplied at extra
charge of 7s. 6d. Lettering on
nameplate 5s. extra (30
letters each side).

STANDARD CARRIER

at same price and terms.

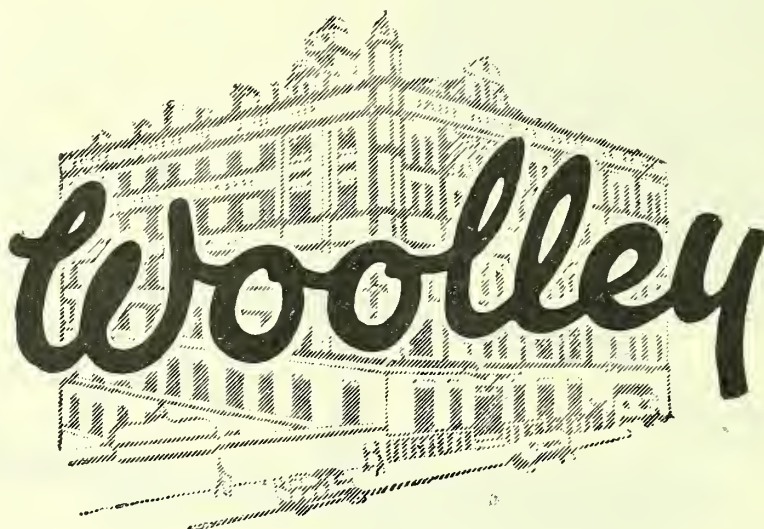
EVERY RALEIGH CARRIER CYCLE has
the finest equipment, including BROOK'S
SADDLE, DUNLOP TYRES, etc.

Do you realise how much a Carrier Cycle would help your business? It would enable you to cover a far wider area, serve more new customers—and give quicker deliveries to existing customers. Instal a Raleigh—the all-steel Cycle, guaranteed for ever never to let you down—the Cycle which will withstand the hardest usage every day of the week—every week of the year. Its rust-proof enamel frame and chromium-plated parts will always be a credit to your business without demanding any attention. And its cost is so very small—particularly when compared with the additional profits it can help you to make in a single week . . . Think it over—then extend your business by installing a Raleigh!

THE RALEIGH CYCLE CO., LTD., NOTTINGHAM

RALEIGH

CARRIER BICYCLE



**FOR ALL
PHARMACEUTICAL
REQUIREMENTS**

**Your enquiries
are invited**

**JAMES WOOLLEY
SONS & Co., Ltd
VICTORIA BRIDGE, MANCHESTER**

W.I.A.

Surgical Dressings For Every Purpose

Maw's range of Yellow Pack Surgical Dressings is undoubtedly the most complete of its kind. They manufacture and stock practically every type of Dressing in general use and are particularly well equipped for the supply of Dressings for special purposes.

Large resources and wide experience enable them to deal effectively with orders for Dressings of every description. Think what this means to you—the certainty that no matter how large or small your order, or whatever your Dressings requirements, Maw's are able to supply you promptly and efficiently.

Consider Maw's quality—consistent attractiveness of packages—their Bonus terms—that Maw's Dressings are yours.

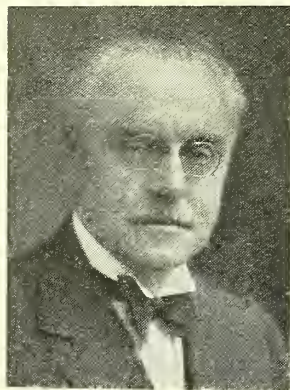
The original Yellow Packed Dressings.

S. Maw, Son & Sons, Ltd.,
Aldersgate Street,
London, E.C.1.



Personalities

MR. ANDREW HOME - MORTON, M.Inst.C.E., M.I.Mech.E., M.I.E.E., F.C.S., who resigned from the position of managing director of The Hoffmann - La Roche Chemical Works, Ltd., London, N.13, at Christmas 1932, was the recipient of many tokens of esteem from his fellow directors, colleagues and staff.



MR. A. HOME-MORTON

He was born at Airdrie, Lanarkshire, and was educated at St. Paul's School, London; King Edward's High School, Birmingham; the Royal Technical College, Glasgow, and the University of Glasgow. After a short apprenticeship in engineering he joined his father, the late Mr. David Home-Morton, M.Inst.C.E., M.I.Mech.E., consulting engineer, Glasgow, with whom he was successively assistant, chief assistant, and partner. The firm of D. & A. Home-Morton, as specialists in the design, layout, and construction of industrial works, planned many works and factories. Mr. Home-Morton was president of the Birmingham Association of Mechanical Engineers in 1914-15. During the recent war he was continuously engaged in the laying down of new factories and the extension and rearrangement of old ones for the production of munitions. In 1915 he joined the International Rotary movement, was president of the Rotary Club of London in 1917, and, in 1918-19, president of Rotary International Association for Great Britain and Ireland (R.I.B.I.). In 1918 he was sent by the Ministry of Information on a lecturing tour in the United States. At the conclusion of the war he took an interest in several commercial enterprises, and travelled, for business purposes, in the United States and in Northern, Central and Eastern Europe. After the death of his then partners, he was offered and accepted a position in the advertising department of Nestlé & Anglo-Swiss Condensed Milk Co., Ltd., London, in 1922. In July 1923 he became general manager and later managing director of The Hoffmann-La Roche Chemical Works, Ltd., London. Mr. Home-Morton's recreations used to be Rugby football, rowing, photography, and writing and lecturing on scientific and other subjects. Latterly, they have been mostly writing and public speaking.

Reprinted from THE CHEMIST AND DRUGGIST of January 7, 1933.

The above-named

Mr. ANDREW HOME-MORTON

is now free to offer his services and experience to Firms of Repute.

• • •

Letters only, in first instance, to him, c/o

THE CHEMIST AND DRUGGIST
28 Essex Street, London, W.C.2

THE NOW POPULAR "MIDDLE-WEIGHT" LINE



No. 360 (B.C.)	} Bone Handle Middle Length Head	} 10/- per dozen
" 361 (Y.C.)		
" 363 (H.or M.)		
" 364 (V.H.Y.)		

MADE IN ENGLAND BY

Addis
ESTD. 1780

REGD

BRUSH WORKS, HERTFORD

SELL TO MOTORISTS

HERE is the Soap you have been looking for. A pumice block which looks like a high grade toilet soap—and lathers like one, too. And at a price which is within the reach of all.

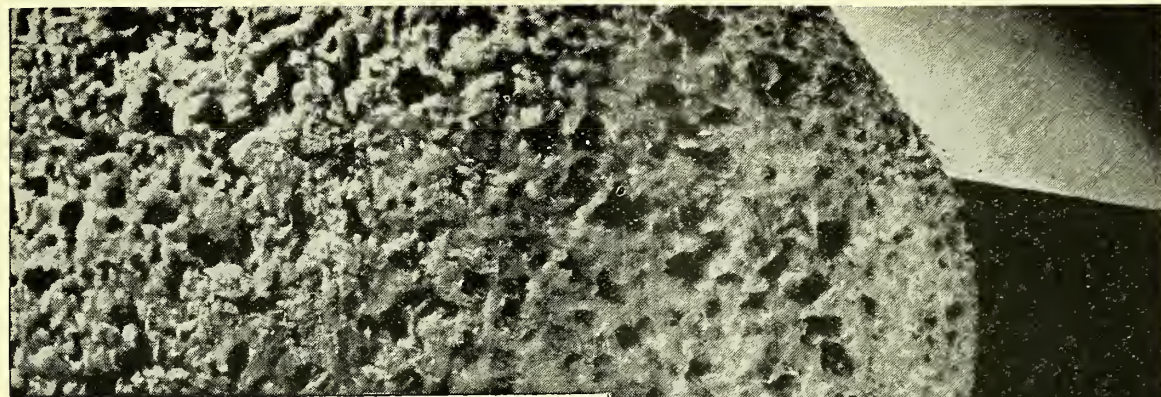
CALVERT'S PUMICE SOAP

SPECIAL OFFER

On orders of £4
2/- doz. less 10% and 2½% cash
On orders of 54/-
2/- doz. less 5% and 2½% cash

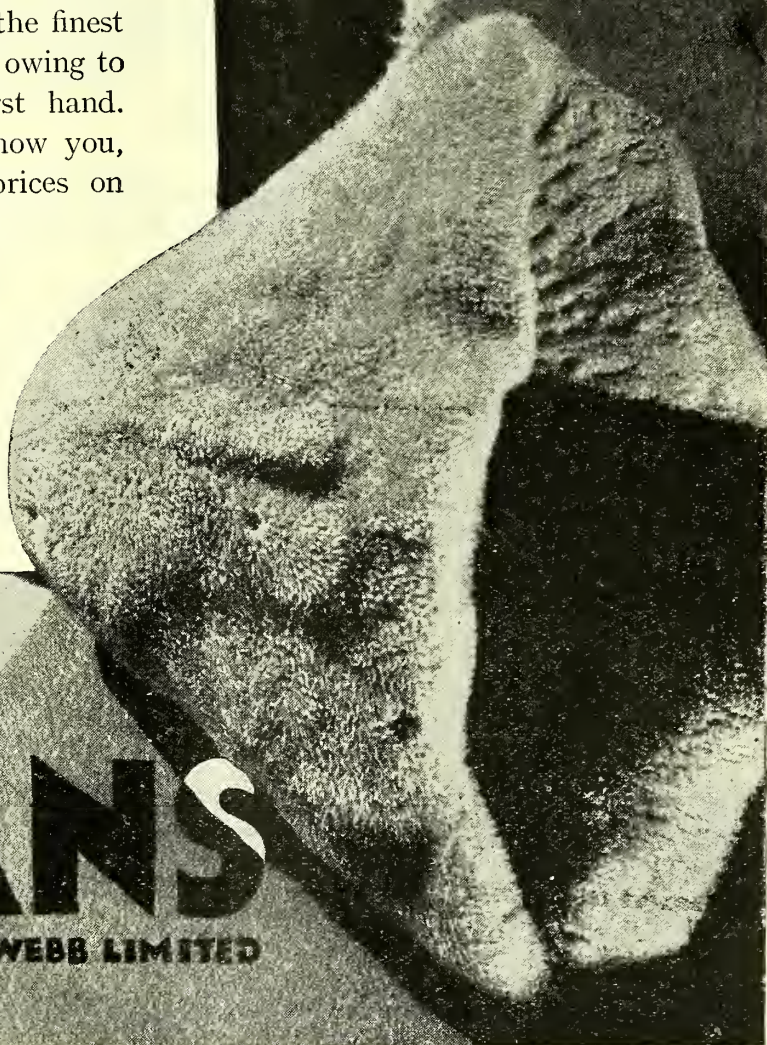
NOTE.—Orders need not be confined to Calvert's Pumice Soap solely, but can include any of our other well-known lines.

F. C. CALVERT & CO., LTD., Manchester



EVANS—the House for Quality Sponges

WE have specialised in sponges for many years and are in a unique position to supply the finest quality at the lowest price, owing to the fact that we buy first hand. Our representatives will show you, or obtain samples and prices on request. As is the case with food and clothing, sponges are a daily necessity in every household, and we offer you the finest selection at importers' prices, both in honeycomb and turkish varieties.



EVANS

SONS LESCHER & WEBB LIMITED

Established 1900

EUCRYL DENTIFRICES

EUCRYL TOOTH POWDER
EUCRYL TOOTH PASTE
EUCRYL DENTURE POWDER

Bought on Display Terms Yield:

PROFIT ON
SELLING PRICE

43%

PROFIT ON
BUYING PRICE

75%



**BRITISH OWNED
BRITISH MADE**

Continuously Advertised
Quick Sales Large Profits

EUCRYL Limited

Manufacturing Chemists - SOUTHAMPTON

Mercolized Wax

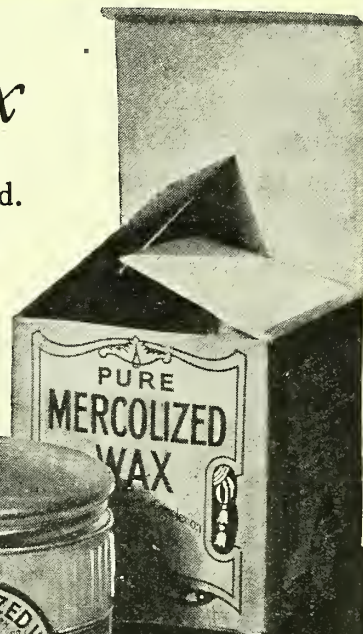
for the Complexion

Extensively Advertised. Always in Demand.

*There is no risk in holding full stocks.
Every woman is a potential buyer.
Sales are regular and repeats certain.*

Stallax

*a Shampoo—also popular,
and shows a handsome profit.*



Telephone,
Holborn. 9669

Dearborn

(1923) Limited

37 Gray's Inn Rd. London. W.C.1.

*Meeting a real
need of to-day*



In these stringent times price is an important factor in the sale of Shaving Cream and this notable addition to Cussons' Lavender Series—a new and highly concentrated Shaving Cream—is made particularly to meet the demands of to-day. It permits you to offer splendid value at a truly attractive price. It will bring custom from recommendation also.

Olde

English Lavender

SHAVING CREAM

"One of the
Lavender Series."

Packed in 12's in an eye-impelling, dignified outer, Cussons' Lavender Shaving Cream deserves a prominent position—to ensure a steady and ever-increasing sale.

Cussons KERSAL VALE, MANCHESTER

**ORDER 3 DOZEN
ANZORA-AND
RECEIVE 3 DOZ+3!**



Up to and including April 30th any chemist ordering at one time not less than 3 dozen bottles of Anzora, will receive 13 to the dozen. This special offer is to help you to gain the maximum benefit from the present Anzora advertising campaign. Be sure to make the most of the opportunity by giving Anzora a special display this month.

An attractive range of showcards and display material will be sent on request.

ANZORA
CREAM & VIOLA
BOTH MASTER THE HAIR

ANZORA PERFUMERY Co. Ltd., N.W.6

CHEMISTS

BENBRI REGD.
**HANDKERCHIEF PUFF &
LIPSTICK COMBINATION**

Cost the same as an ordinary Handkerchief Puff

Tinted Down Wool
from 18/- doz. 15/- doz.

Showcards with every order

BENBRI REGD.
LIPSTICK 6d.

costs 4/- doz. 3 popular shades. Packed
3 dozen in the most attractive counter
display box

BENNETT, BRIANT & COMPANY
17, Paper Street, E.C.1
TELEPHONE: METROPOLITAN 9667.

What YOU are looking for!
THE PREMO HANDY SPRAY
RELIABLE, EFFICIENT AND LASTING
Used with one hand only

This is a beautiful, efficient and thoroughly practical spray. There are no rubber bulbs to perish or burst and no glass bottles to break, in fact nothing to get out of order. The Premo Handy Spray can be used in many ways such as for spraying Setting Lotion, Hair or Face Lotion, Lavender, Cologne and disinfectants of all kinds. Flowers too may be sprayed with it. It is a reliable spray for your own use and one which you can recommend to your customers with every confidence.

NICKELLED CHROMIUM PLATED
8/- each 10/- each
Retails at 12/- Retails at 15/-



Prov. Patent No. 78033.

SILK'S TOILET Co., 8-9 Red Lion St., LONDON, W.C.1

TAYLOR'S CIMOLITE TOILET POWDER
THE PERFECT POWDER FOR NURSERY USE



A perfectly bland and non-irritating Powder. Invaluable in all cases of Excoriations, Chafing, Roughness of the Skin, etc. Recommended by eminent skin doctors and recognised as the leading Toilet Powder for over 70 years by the nursing profession. Used in the Royal Households.

In deference to the many requests received from users of "CIMOLITE," a sprinkler tin to retail at 1/1½ is now available. This new packing is in addition to the familiar 1/1½ packet which is still on the market.

When ordering please specify TINS or PACKETS.

"CIMOLITE," in all sizes, also CIMOLITE SOAP AND CREAM, is stocked by all Wholesale Chemists and Druggists.

TERMS and ILLUSTRATED PRICE LISTS, also ATTRACTIVE SHOW-CARDS, Counter Bills and other selling literature, obtainable from

**JOHN TAYLOR, 30 Baker Street, Portman Square,
LONDON, W.1**



A window or counter display of this new product which checks excessive perspirations safely, and entirely banishes perspiration odour, will be a source of immediate profit to you in the coming months. Nonspi will be consistently and forcibly advertised in the papers women read. First public advertisement appears in the DAILY MIRROR and DAILY SKETCH (W/E April 29th.)

READ THESE ADVANTAGEOUS TERMS

Price to Public	List Price per Dozen
1/6d. Size	13/-
2/6d. Size	21/6d.

(On first orders we supply one sample bottle Nonspi for every small size bottle ordered.)

Quantity Discounts.

Have you received your FREE PACKAGE?

Send to Nonspi Ltd. (Dept. C.D.), 300-302, Gray's Inn Rd., London, W.C.1, for free package containing one full sized bottle and three sample bottles of Nonspi. This will enable you to meet the first enquiry and also make it possible for you to test out this new deodorant.

MADE IN ENGLAND

NONSPI

CHECKS PERSPIRATION

NONSPI LTD. (Selling Agents RICHARD HUDNUT LTD.) 300-302 GRAY'S INN RD., LONDON, W.C.1

The above does not apply to the I.F.S.

WATERSPRITE KNITTED FACE CLOTHS

EACH IN CELLOPHANE WRAPPER
PACKED IN NEW COLOURED
DISPLAY CARTON

FROM
3/6
PER DOZ.

ORDER
YOUR
STOCKS
NOW!

FULL DETAILS IN OUR
NEW ILLUSTRATED
PRICE LIST.



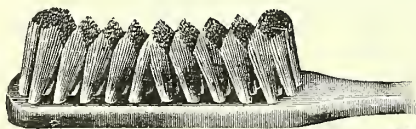
EXTRA COST
IN THIS NEW PACK
PER 6d. DOZEN.

SOLPORT

BROTHERS LIMITED

184-192 GOSWELL ROAD, LONDON, E.C.1

Supplies obtainable from all Wholesalers.



BOTH-WAYS TOOTH BRUSH

ATTRACTIVE — EFFECTIVE —
DURABLE

HARD BRISTLE IN BEST BONE HANDLES

KEEPS ITS STIFFNESS

Gent's 11/-

Lady's 8/-

Bone Eyebrow Brushes 24/- per gross

Erinoid Eyelash and Eyebrow Sets
6/6 per dozen sets

□ □ □



TRADE MARK

**BIDWELLS,
AXMINSTER**

BIDWELL BIDWELL & CO LIMITED.

G. B. KENT & SONS, LTD.

Are known the World over as
the Largest Manufacturers of

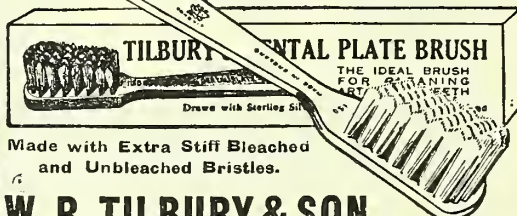
BEST BRITISH BRUSHES

Please write for full Particulars to :

75 FARRINGDON ROAD, E.C.1

Established 1880.

TILBURY "Fort" Dental Plate Brush



Made with Extra Stiff Bleached
and Unbleached Bristles.

W. R. TILBURY & SON

47 FRAMPTON PARK ROAD, HACKNEY,
LONDON - - - ENGLAND

No other Razor like this!

WITH OUTSTANDING SELLING FEATURES.

- ① Takes any type of Double-Edged wafer blade. (The solution of a vexing problem.)
- ② Automatically centres every blade. (Both edges shave alike.)
- ③ Provides adjustment to regulate Shaving Edges. (To suit either light or stiff beards.)
- ④ Has a Magnet in the handle to pick up Razor Blades. (A powerful Selling Appeal.)



MODEL W
In Blue Leather Wallet with 1 "Eclipse" Super Blade retails at **5/-**



MODEL BB
In attractive Blue moulded case with 5 "Eclipse" Super Blades retails at **7/6**

U.K. PATENTS

The MAGNET IN THE HANDLE PICKS UP THE BLADE WITHOUT DANGER. No more cut fingers!

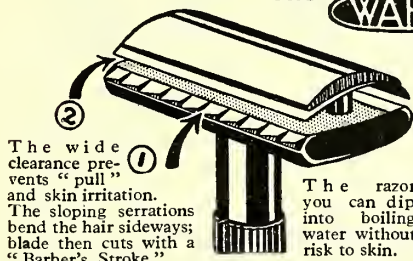
Sole Manufacturers:
JAMES NEILL & CO., (SHEFFIELD) LTD., COMPOSITE STEEL WORKS, SHEFFIELD, 11.

"Eclipse" RED RING RAZOR
MAGNETIC PICK-UP

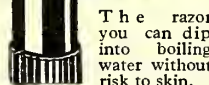
Obtainable from all Wholesalers.

The World's Most Marvellous Razor !

The **WARDONIA**



The wide clearance prevents "pull" and skin irritation. The sloping serrations bend the hair sideways; blade then cuts with a "Barber's Stroke."



The razor you can dip into boiling water without risk to skin.

Sensational, incomparable, miraculous. Works wonders with the stiffest beard. Generous supply of sales-creating display showcards, cut-outs, etc., FREE. Order NOW—or send for list and trade terms.

Sole Makers :

Thomas Ward & Sons, Ltd., Wardonia Works, Sheffield, Eng.

8/- gross
125% PROFIT

5-MIN TYPE

SELL AT 1/6 DOZ.

15/- gross
100% PROFIT

5-MIN TYPE

SELL AT 2/6 DOZ.

5/- gross
120% PROFIT

5-MIN TYPE

SELL AT 1/- DOZ.

'OCEAN' BLADES

BRITISH-MADE AND BEST OF ALL.

Made from first quality steel by improved method guaranteeing super-keen edge. Over a hundred million sold to date. No better blade obtainable at any price.

'OCEAN UNIVERSAL'

The super-quality Blade which fits every kind of slot, stud or 3-peg razor holder.

'CONQUEROR' BLADES

Knock-out value in a PENNY Blade. Unquestionably the finest blade obtainable at the price. Best silver steel used.

Samples and attractive showcards free. Leading wholesalers stock all blades. For direct supplies send P.O. or Cheque to

OCEAN BLADES (Gt. Brit.), LTD.,
Sales Dept., 1-6 Bridgewater Place,
London, E.C.1. (Clerk. 6257)

Blades also made under customer's own name—state quantity.

QUALITY The blade the Public have heard so much about on the air.

WILL TELL

WANIE

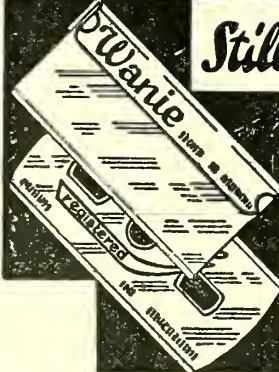
Still the 'Best Seller'

Single-sided 10/- per 100
Three-hole 8/- per gross

Send for sample to Dept. C.D.
S. KALISKY (Aldgate), LTD.
146 THEOBALD'S ROAD, W.C.1.

Northern Distributors :
S. KALISKY (Aldgate), LTD.
16 Withy Grove, Manchester

Irish Free State Agents :
Messrs. W. A. Freedman & Co. Ltd.
20-21 Merchants Quay, Dublin
Wholesalers are invited to apply for Trade Terms



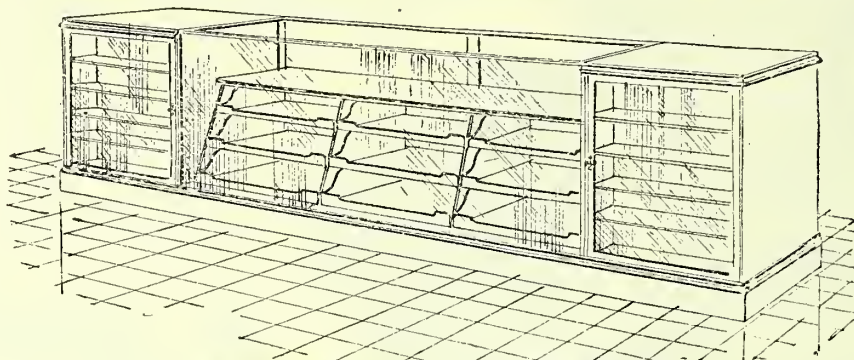
PHILIP JOSEPHS & SONS, LTD.

PHARMACEUTICAL SHOPFITTERS

90 & 92 St. John Street, Clerkenwell, LONDON, E.C.1

Telephone : CLERKENWELL 2191

Telegrams : JOSIPHIAH, SMITH, LONDON



THE IDEAL COUNTER

DETAILED SPECIFICATION AND PRICES ON APPLICATION

"PHARMACY FITTERS FOR OVER A CENTURY"

WATERGLASS

(140 T.W.)

LEVER LID CONTAINERS

ATTRACTIVE LABELS
(Customer's "own name" if desired)

Enquiries to :

NEWBALL & MASON LTD., NOTTINGHAM

CUT your Filling COSTS in HALF!

Simple and effective, this snappy little machine gives maximum production at a minimum of cost. No trouble to charge. Easy to operate and clean, whilst equally suitable for Sprinkler Neck or ordinary containers with light or heavy preparations.

The 'LAUDER' BOTTLE FILLING MACHINE (No. 4A)

(Patent pending)

is strongly made of STAINLESS STEEL (2 1/6 galls. capacity) and fitted with our latest self-contained valve. Compressed air simply and easily generated with small foot pump supplied and regulated by adjustable safety valve (can be used for Gravity Filling also).

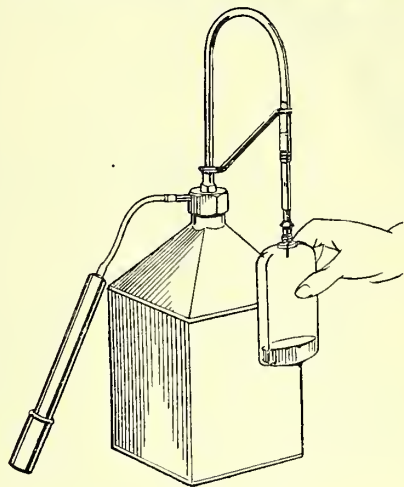
Beware of spurious imitations!

Full particulars from Sole Manufacturer :

L. T. LAUDER, 4 Miles Hill Street, LEEDS, 7



TOOGOOD'S BOTTLE FILLING APPARATUS for Sprinkler-neck Bottles

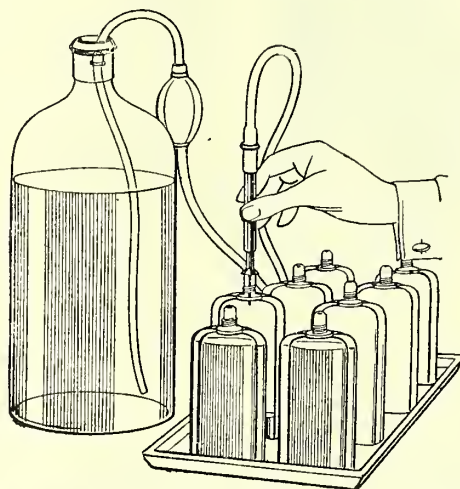


Pressure Type for Oils or
Thick Liquids.

Made in
two styles

A new type of Filling Valve

Prov. Patent No. 30222



Gravity Type
for Spirits or
Thin Liquids.

For prices and full particulars apply to

WILLIAM TOOGOOD LIMITED

77 SOUTHWARK STREET
London, S.E.1

UGLY PACKAGES

ARE THE ILLEGITIMATE OFFSPRINGS OF

CARELESSNESS

AND

INDIFFERENCE

"Any old box is not good enough for your new line. Take the trouble to have it clothed in a design worthy of the success you seek for it. True art is never dear, for beauty always pays. Consider the user, the public, and your own purse and refrain from adding still another horror to those which make the modern shop a chamber of horrors to the 'artistically inclined.'"

*Our Designers, assisted by
MEMBERS OF THE ROYAL ACADEMY
can give you a box to be proud of.*

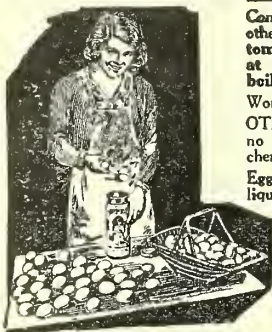
ROBINSON & SONS, Ltd.,

Producers of High Class
Cartons and Boxes,
CHESTERFIELD & LONDON.

Housewives Everywhere are asking for

OTEG Egg Preservative

Thousands of Tins were sold last season!
ARE YOU STOCKING IN 1933?



Consider OTEG before stocking others. With Oteg your customers store eggs dry in a box at home for ten months for boiling and all purposes.

Wonderfully simple and efficient. OTEG seals every pore, and needs no preparation and no pails of chemicals, it is ready for use.

Eggs are simply DIPPED into thin liquid with the wire tongs provided; DRIED for half an hour; and then STORED.

A quart of Oteg seals over a thousand eggs.

It will pay you to stock this household necessity without delay.

SEALED TINS WITH DIPPER,
for 250 eggs, 2/8; 500, 4/9; 1,000, 7/9.

Cartons containing sealed tin, wire tongs, booklet. Generous Trade Terms. Easy Sales. Good Profit. Forceful Advertising.

Stocks sealed and good for two seasons.
Attractive advertising matter.

SOZOL (1924) LIMITED

20 COPTHALL AVENUE, LONDON, E.C.2

Stands at British Industries Fair and Ideal Home Exhibition, &c.

HARVEY'S

Watts' Embrocation, or Curb Bottle.
Aconite Powders.
Worm & Condition Powders.
Watts' Red Lotion.
Hair-Restoring Ointment.
Edos, or Tasteless Purging Powder.

HARVEY'S

Great

Protected Prices
(P.A.T.A.)

Remedies for the Horse

HARVEY'S



Koppas Powder.
Parasiticide.
Thrush Specific.
Hoof Ointment.
Skin Specific for Dogs.

Of all the leading Druggists' Sundries Houses
HARVEY & COMPANY, Ltd., Dublin

Why CATALINE Pays to Stock

BECAUSE it enjoys the largest sale of any Cattle Medicine Preparation and is on the P.A.T.A.

BECAUSE it is consistently advertised and all advertisements refer to the Chemist as the source of supply.

BECAUSE it is well packed, does what it is advertised to do, and shows the trade a satisfactory profit.

BECAUSE we do not employ travellers to call on Farmers or solicit orders at cattle fairs or markets.

One size, retailed at face value, viz. : 3/9 per bott.

Cash with order terms.

1 doz. 36/-, 3 doz. at 35/6, 6 doz. at 35/-, 12 doz. at 34/6 per doz.
CARR. PAID. CASES FREE.

Stocked by most Wholesale Houses.

THE CATALINE CO., LTD., Bristol

AYRTON-GRAHAM LTD.

Designers and actual manufacturers of

FITTINGS

For the MODERN PHARMACY.

Shop Fronts, Show Cases, Exhibition Cases, Counter Cases, Counters, Wall Cases, Glass Signs, etc., etc.

PHARMACIES MODERNISED.

ALL GOODS OF BEST QUALITY
AND FINISH AT LOWEST RATES

Competent Fitters sent to all parts.

24 BENSON ST., LIVERPOOL

MODERN PHARMACY FITTINGS

In SOLID OAK or MAHOGANY, at the following COMPETITIVE PRICES:—

8 ft. Drug Run, £17 6 ft. Dispensing Screen, £14
6 ft. Showcase Front Counter, £8 5 0
6 ft. All Glass Counter, £8 15 0, etc., etc.,

BECAUSE we are the ACTUAL MANUFACTURERS.

TESTIMONIALS received from SATISFIED CHEMISTS who have installed our fittings.

SEND NOW for our new Photographic List.

Your inspection invited at Works.

MYERS, Complete Pharmacy Fitters,
134a Kingsland Road, E.2. BISHOPSGATE 2524.

Every dog in YOUR DISTRICT means a DOG-OWNER WHO BUYS BOB MARTIN PREPARATIONS REGULARLY

*Attract this huge
business to your
Pharmacy with a
BOB MARTIN
DISPLAY*

EVEN in districts where dogs are scarcest one person in every three is a dog owner.

At least one person in every three in **your** district is, therefore, a regular purchaser of Bob Martin's preparations. People buy where they know their requirements can be met **and you can attract the huge volume of business to be done with dog owners to your pharmacy** if you give Bob Martin preparations a permanent window or counter display.

That "a Bob Martin display is **always profitable**" is proved by the many letters we receive from our pharmacist friends.

**Sales steadily increasing as a result
of a window display.**

Mr. Clayton Smith, of Ashbourne Road Pharmacy, Derby, recently wrote: "Our sales of all Bob Martin lines are steadily increasing, and like many other chemists I did not realise the potential demand for dog medicines until I gave Bob Martin preparations a window display."

Display Material.

We will be pleased to send supplies of display material at any time, and a postcard to Southport will receive prompt attention. If you would like your name added to the **Bob Martin Display List** please say so, and copies of all display material will then be forwarded to you immediately they are issued.

BOB MARTIN Ltd., SOUTHPORT, Eng.

Dog food and medicine manufacturers since 1892



STOP PRESS.

We have increased the number of powders in the 1/- packets of Bob Martin's Condition Powders from 18 to 21. This will mean bigger business for you in the 1/- packets. A display **NOW** will be profitable.

YOUR TRUMP CARDS!

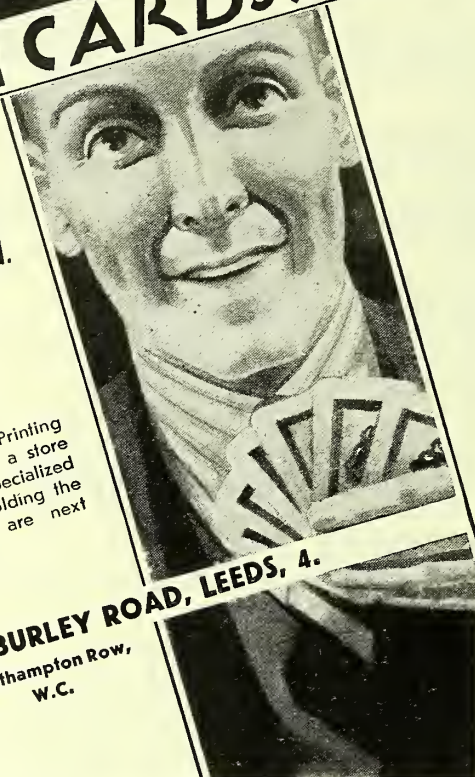
ALF HARRISON & Sons, Ltd.

CHEMISTS' AND ADVERTISING PRINTERS

A firm who have specialized on Chemists' Printing for sixty years and have collected together a store of intricate knowledge of the highly specialized details of your business are assuredly holding the Trump Cards of advantages when you are next considering buying Print.

Send us your next enquiry

ALF. HARRISON & SONS, Ltd. BURLEY ROAD, LEEDS, 4.
LONDON OFFICE: Sentinel Ho., Southampton Row, W.C.



A WONDERFUL WINTER SELLER.

VOX
Bronchial
Pastilles

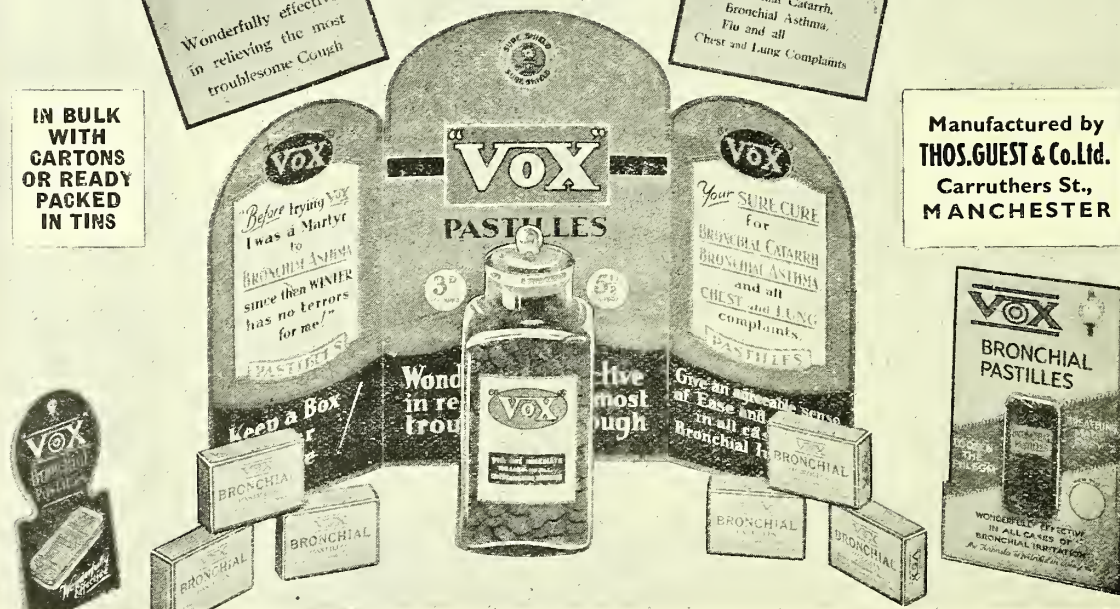
Wonderfully effective
in relieving the most
troublesome Cough

VOX
Bronchial
Pastilles

Your "SURE CURE"
for
Bronchial Catarrh,
Bronchial Asthma,
Who and all
Chest and Lung Complaints

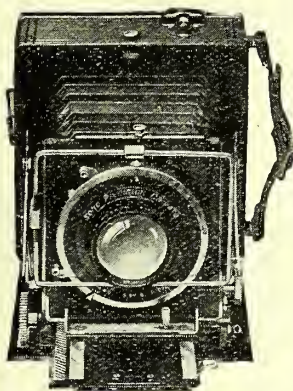
IN BULK
WITH
CARTONS
OR READY
PACKED
IN TINS

Manufactured by
THOS. GUEST & Co. Ltd.
Carruthers St.,
MANCHESTER



SOHO

Behind every SOHO Camera stands the firm guarantee of a noted British Manufacturer. Every instrument is well designed, skilfully manufactured, and carefully adjusted and tested. Further, no expense is spared in making the merits of SOHO Cameras known to a wide circle of potential customers. The sale of a SOHO Camera ensures satisfaction to dealer and customer alike.



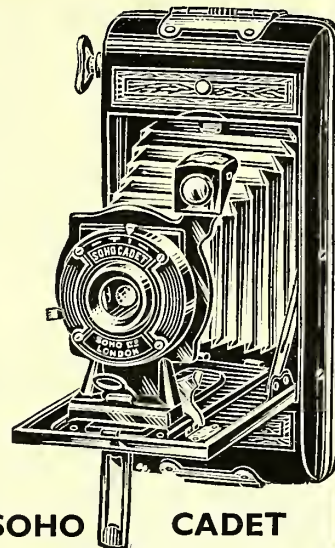
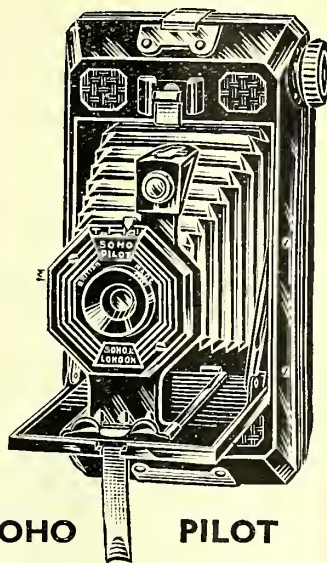
SOHO PILOT

A solid folding camera of lasting quality, which will take excellent pictures $3\frac{1}{2} \times 2\frac{1}{4}$ ". It folds up for the pocket; a marvel of camera value. **15/- & 20/-**

THE SOHO PRECISION

is a new model embodying every essential movement. It is to all intents and purposes a field camera, but one that is as mobile as a pocket camera.

Price, without lens, **£13:10**



SOHO CADET

Has proved an outstanding success. Handsome in appearance, exceptionally sturdy in construction, untarnishable, practically unbreakable, reinforced bellows giving treble the life. It is an all-distance camera, no portrait attachment required. (Pictures $3\frac{1}{2} \times 2\frac{1}{4}$ " or 9×6 cm.) Price **25/-**

SOHO CADET DOUBLET. Similar to SOHO CADET but fitted with doublet lens and four diaphragms, greatly enlarging the scope of its work. Price **30/-**

Be sure to include in your stock a representative range of these famous Cameras. List and full particulars from

SOHO LTD., SOHO SQ., LONDON, W.1

LONDON COLLEGE OF PHARMACY

Founded by H. WOOTTON, B.Sc.) C. W. GOSLING, Ph.C.

Principal: IRVINE G. RANKIN, B.Sc., Ph.C.

SPECIALISTS IN TRAINING PHARMACISTS

NEXT { 6 Months—Prelim. Scientific Course for Sept. } Commence on
3 " Revision P.S. and C. & D. for June } April 5

Preparatory Postal Courses available for Juniors and Apprentices before their college days.

Apply to the Secretary, **361 CLAPHAM ROAD, S.W.9**

Telephone: Brixton 2161

"BARNETT FOR BOTTLES"

We solicit your kind enquiries for

WHOLESALE ONLY

VIALS, MEDICALS, PANELS & NOVELTIES for packing PERFUMES, etc.

JACK L. BARNETT, LTD., 18 BASINGHALL ST., LEEDS, 1

Phone: 28447 Leeds

50th YEAR OF PUBLICATION

THE EXTRA PHARMACOPŒIA

VOL. I—20th EDITION—NOW READY

27/6 net—28/- post free throughout the world.

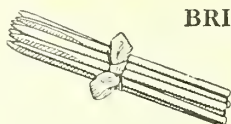
An up-to-date book of reference containing concise and easily-found information on the clinical use of modern chemicals and drugs—characters, dosage, methods of prescribing, etc. The Posological Index contains over 12,000 items.

A synopsis of the principal Changes and Additions in the new B.P. is incorporated.

Pharmaceutical Journal, Oct. 15th, 1932, says: "It is impossible to imagine, even in this time of financial stringency, any dispensary bookshelf being complete without it."

Descriptive leaflet on request.

LONDON: H. K. LEWIS & CO. LTD., 136 GOWER ST., W.C.1, also from W. MARTINDALE, 12 NEW CAVENDISH ST., W.1.



BRITISH GOODS
THAT MEET
FOREIGN
COMPETITION

Wholesale Houses only supplied.

MANICURE GOODS

CARDED AND BOXED

ROBERT LEE, 14 Calverley Grove, N.19

Phone: Archway 2144.

LIVERPOOL SCHOOL OF PHARMACY



Principal:

H. HUMPHREYS JONES,
F.I.C., F.C.S., Ph.C.

Revision classes for
July Exams. from
Early April.

Next Session will
commence Oct. 5th

Full particulars from
2, BLACKBURN PLACE,
LIVERPOOL.



AZYMA

CACHETS

FRENCH, MORSTADT,

and the new DRY CLOSING

Special quotations for quantities and for printing

Write for Samples to:

CICERO S. CLARK, Sole Agent
12 RICHMOND ROAD, W.2

3/3 per 1,000

ALL SIZES

(Carr. paid on 4,000)

BY THE HUNDREDWEIGHT OR
MILLION—

TABLETS COATED OR
UNCOATED

Keen Buyers
write to—

T. H. WALTON & Co. Ltd. BATLEY

DRUGGISTS' SUNDRIES

A. de St. **DALMAS** & Co. Ltd
LEICESTER

SHADEINE FOR TINTING GREY HAIR

This popular article is largely advertised
and stocked by all Wholesale Houses.
Trial size 8d, per doz. 6/-
1/4 size, per doz. 12/-
2/6 size, per doz. 24/-
3/9 size, per doz. 36/-

The SHADEINE Co., 58, Westbourne Grove, London, W.2

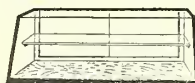
FORSTERS' & VAPOURISERS
FENOLIN for Whooping Cough
FLUID Hall, Forster & Co., Ltd.
Newcastle-on-Tyne.

ON PAT. A.
4oz (11/5) 11/-

10,000 Attractive Leaflets 27/6, 5,000, 17/6
Carriage Paid

Good, clean, bright work that will increase
trade. A Post Card will bring you full
information and samples.

ELLAMS & Co., 33 Hanover Street, Liverpool



THE KWIK-SALE SHOWCASE

Suitable for all Businesses.

D. MATTHEWS & SON,
Shop Fitters and Showcase
Manufacturers.
14/15 Manchester St.
LIVERPOOL.

Plate glass sloping front. Frameless Mirror
sliding doors at back. Polished edge plate
glass shell inside. Size 3 feet long. 14 in.
back to front at bottom. 9 in. back to front
at top. 12 in. high. £5-10-0

CHEMISTS' FITTINGS OF EVERY DESCRIPTION. NEW AND SECONDHAND.

F. MAUND & E. BERG (SHOWCASES) LTD.,
175/8 and 336 OLD STREET, LONDON, E.C.1

HORNBY'S TINS

For all chemists' purposes

WRITE NOW for samples and prices.

HORNBY & CO. (HULL) LTD.
36 HIGH STREET, HULL

TREBLES

SHOP FITTERS
SHOP FRONT
BUILDERS

PHARMACY FITTERS for over a Century.

549a Lea Bridge Road, Leyton, London, E.10

CLOSING
and
FILLING
Cachet machines
4/6 to 52/6
to suit all Dispensing Requirements.

WRITE FOR ILLUSTRATED LIST.

THOS. CHRISTY & CO., 4-12 Old Swan Lane, LONDON, E.C.4

Trade follows the Ad.

The absolute necessity for increasing British trade — Home and Export — is daily being emphasised by statesmen, business men and bankers.

It is nowadays generally recognised that advertising in a reputable trade journal, with a genuine appeal to actual buyers like

THE CHEMIST & DRUGGIST

is the most EFFECTIVE and LEAST EXPENSIVE way of selling goods. In the case of THE CHEMIST AND DRUGGIST the appeal is universal. Besides having as regular subscribers all the worth-while firms—manufacturing, wholesale, export and retail—in the United Kingdom, the subscription list includes the names of thousands of responsible firms buying and selling drugs, chemicals, perfumery, druggists' sundries, and allied products in the following countries overseas:

BRITISH EMPIRE:

Australia, British Columbia, British Gulana, British West Indies, Burma, Canada, Ceylon, Cyprus, Fiji Islands, Gibraltar, Gold Coast, Hong Kong, India, Jamaica, Kenya Colony, Malay States, Malta, Newfoundland, New Zealand, Nigeria, North Borneo, Rhodesia, St. Helena, Sierra Leone, Trinidad, Uganda, Union of South Africa and Zanzibar.

EUROPEAN CONTINENT:

Austria, Belgium, Bulgaria, Czecho-Slovakia, Denmark, Estonia, Finland, France, Germany, Greece, Holland, Hungary, Italy, Latvia, Norway, Poland, Portugal, Roumania, Russia, Serbia, Sicily, Spain, Sweden, Switzerland, Turkey and Yugo-Slavia.

CENTRAL AMERICA and SOUTH AMERICA:

Argentina, Bolivia, Brazil, Chile, Costa Rica, Cuba, Guatemala, Panama, Peru and Salvador.

AFRICA:

Canary Islands, Congo (Belge), Egypt, Portuguese West Africa, South West Africa Protectorate, and Sudan.

NEAR EAST and FAR EAST:

Arabia, Asia Minor, China, Dutch East Indies, Japan, Manchuria, Mesopotamia, Palestine, Philippine Islands, Siam and Syria.

UNITED STATES OF AMERICA.

MEXICO.

Thus wherever the British Flag goes there also is THE CHEMIST & DRUGGIST, and the point to bear in mind is that it is sent regularly at the request of eager buyers of Drug-trade commodities who prepay 20/- to have it delivered to them weekly for twelve months. The firm with Drug-trade merchandise to dispose of, therefore, which is not advertising in THE CHEMIST & DRUGGIST is losing golden opportunities.

All particulars regarding available space, special positions, coloured insets, &c., from:

THE PUBLISHER

THE CHEMIST & DRUGGIST

28 ESSEX STREET, STRAND - - - LONDON, W.C.2

BRANCH OFFICES:

49 County Buildings, Cannon Street,
MANCHESTER.

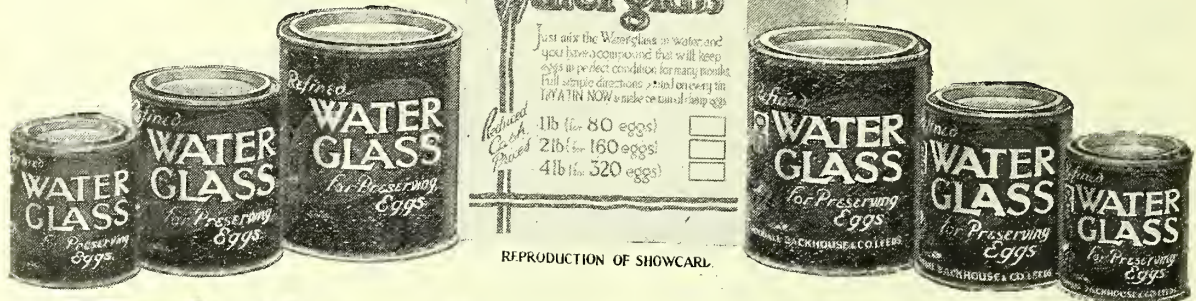
19 Waterloo Street,
GLASGOW.

54 Foster's Buildings, High Street,
SHEFFIELD.

And MELBOURNE and SYDNEY, AUSTRALIA.
AUCKLAND, NEW ZEALAND.

SEASON
1933

SEASON
1933



Waterglass

For the convenience and profit of our friends we have pleasure in submitting the following exceptionally favourable offers :—

	1 lb.	2 lb.	4 lb.	ENAMELLED LEVER LID TINS
140° Tw.	2/6	4/-	7/6	per doz
84° Tw.	2/4	3/9	7/-	" "

In these sizes the choice of four elegant tin designs is given, viz. :—

- 140° Blue and Red—"G.B. & Co." brand.
- Green and Red—without firm's name.
- Yellow and Red—for chemists only.

84° Scarlet and Gold—without firm's name.

Larger sizes are packed in Labelled Lever Lid Tins :

	7 lbs.	14 lbs.	28 lbs.	
140°	13/6	27/-	54/-	per doz
84°	12/6	25/-	50/-	" "

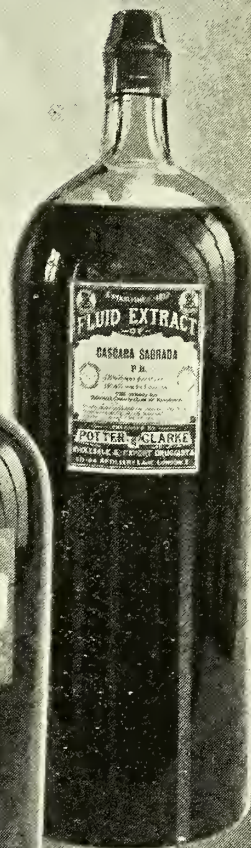
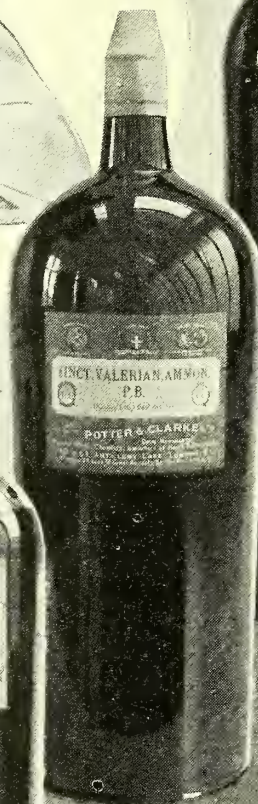
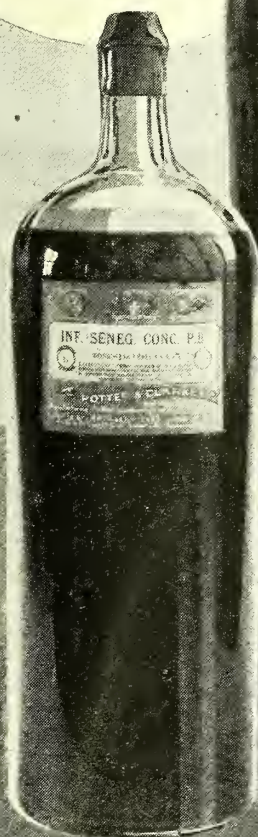
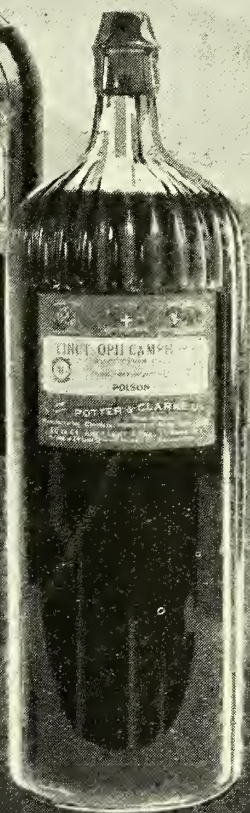
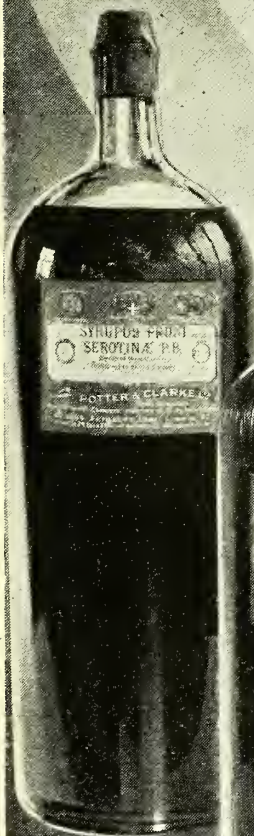
We shall esteem the favour of your orders, which we request you will be good enough to place with us early to avoid delay.

Delivery free in our Motor Delivery Area. Outside districts free on rail

GOODALL, BACKHOUSE & CO. :: LEEDS

"WINGED LION" BRAND GALENICALS

LIQUID EXTRACTS
TINCTURES
SYRUPS
INFUSIONS
DECOCTIONS
EMULSIONS
and all
Pharmaceutical
Preparations



also at
24 Luna St.,
Gl. Ancoals
Manchester

POTTER & CLARKE

LTD.

60-64 ARTILLERY LANE
LONDON, E. 1.

Phone: Bishopsgate 4761.

Grams: "Horehound, Phone, London."

SASSO

OLIVE OIL

The Standard of Quality



YOUR OLIVE OIL SALES

HOW MANY OF YOUR CUSTOMERS DON'T BUY OLIVE OIL FROM YOU?

HOW MANY DO BUY OLIVE OIL FROM YOU, BUY IT REGULARLY?

With the right quality of Olive Oil you will have a confidence in recommending it that you never had before

With the right kind of Olive Oil you will secure repeat business that you never enjoyed before

With the right kind of Olive Oil you will gain business by recommendation that you could never obtain with a poor brand of oil

THEREFORE—it pays to sell the right kind.

SASSO IS RIGHT!

1. Quality the best.
2. Rigorously standardised.
3. Made by the world's predominant Olive Oil producers.
4. Generous profit.
5. Striking display material.
6. Other selling aids, including samples for your customers.

WRITE FOR SAMPLE AND PRICE LIST.

Producers :

P. SASSO & FIGLI

Oneglia, Italy.

Sole distributors for the United Kingdom :

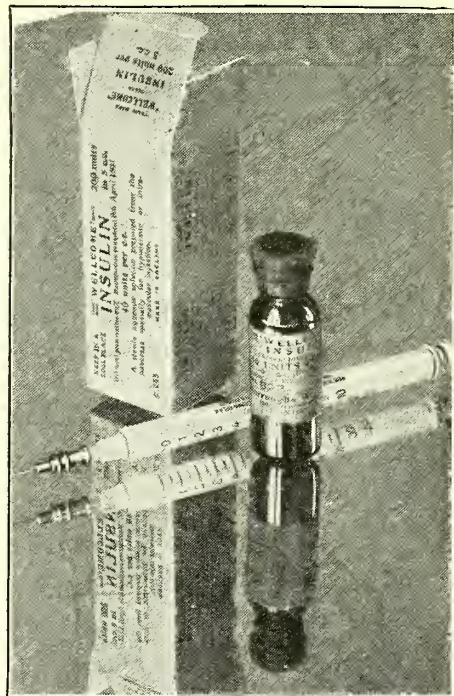
Fredk. Boehm Ltd.,

17 Jewry Street, London, E.C.3.



'WELLCOME' BRAND INSULIN

*Points of
outstanding
importance*



➤ 'WELLCOME' INSULIN conforms to the Therapeutic Substances Act (Great Britain), 1925 (1931 Regulations).

➤ The standard of purity of the insulin hydrochloride used in its preparation approaches that of the purest insulin ever obtained, even by research workers.

➤ It contains the minute amount of antiseptic considered by leading bacteriologists to be an essential precaution against accidental septic contamination, especially when used by patients themselves.

Prices in London to the Trade:

- 20 Units per c.c.
5 c.c. phials, 24/- per dozen
- 10 c.c. phials, 48/- per dozen
- 40 Units per c.c.
5 c.c. phials, 48/- per dozen
- 80 Units per c.c.
5 c.c. phials, 96/- per dozen
(subject)

TRADE MARK 'TABLOID' BRAND
INSULIN
HYDROCHLORIDE
HYPODERMIC
10 UNITS STERILE

Enables dose to be prepared in syringe barrel as required.

Price in London to the Trade:
24/- per dozen cartons, each containing
10 products in one tube (subject)



BURROUGHS WELLCOME & CO., LONDON

Proprietary Agencies Ltd., 179-181 Acton Vale, London, W.3



BENGER'S FOOD, LTD., Otter Works, MANCHESTER.

THOS. CHRISTY & CO., Old Swan Lane, London, E.C.4

THE CHEMIST AND DRUGGIST

A Weekly Journal of Pharmacy, the Drug, Chemical and Allied Trades

*The official organ of The Pharmaceutical Society of Ireland,
The Chemists' and Druggists' Society of Ireland, and of
other Chemists' Societies in Overseas Dominions*

PUBLISHED AT

28 ESSEX STREET, STRAND, LONDON, W.C.2

Telegrams: "Chemicus, Estrand, London" Telephone: Central 6565 (8 lines)

BRANCH OFFICES

4 CANNON STREET, MANCHESTER (TEL.: BLACKFRIARS 3052)

19 WATERLOO STREET, GLASGOW (TEL.: CENTRAL 2329)

155 AVENUE DE WAGRAM, PARIS, XVII³ (TEL.: GALVANI 19-79)

54 FOSTER'S BUILDINGS, HIGH STREET, SHEFFIELD (TEL.: 22458)

99 QUEEN STREET, MELBOURNE, AUSTRALIA

CONTENTS

VOL. 118. NO. 2772

MARCH 25, 1933

	PAGE
Association Meetings	319
Business Changes	327
Canadian Chemical	
Production	341
Coming Events	325
Correspondence:—	
Letters	342
Dispensing Notes	344
Miscellaneous In-	
quiries	344
Subscribers' Sym-	
posium	344
Deaths	327
Editorial Articles:—	
A Year of Subsi-	
dised Research	329

	PAGE
Festivities	321
Information Depart-	
ment	328
Irish Notes	311
Japan's Trade	341
Legal Reports	313
Marriages	327
National Pharmaceu-	
tical Union	318
New Companies and	
Company News	314
News of the Week	309
Pharmaceutical So-	
ciety of Ireland:—	
Council Meeting	315

	PAGE
Pharmaceutical So-	
ciety of Northern	
Ireland:—	
Council Meeting	316
Personalities	327
Pharmacy and Poisons	
Bill	324
Scottish Notes	311
Taxation of Medicines	312
Topical Reflections	312
Trade Marks	340
Trade Notes	326
Trade Report	337
Ulster Retail Drug	
Trade Association	317

	PAGE
PROGRESS OF PHAR-	
MACY:—	
Agricultural	
Chemistry	330
Pharmacy	330
Analytical Chemis-	
try	330
Biological Chemis-	
try	331
Pure Chemistry and	
Physics	331
Bacteriology	331
Dentistry	332
Essential Oils	332
Medicine	333
Optics	335
Photography	335

News of the Week

Wine-Licence Applications

At a meeting of the licensing justices at Finsbury Town Hall, London, E.C., on March 20, among the licences under consideration for renewal were the wine and spirits off-licence, 460 Holloway Road, held on behalf of Bishop's Pure Drug Co., Ltd.; wine off-licence, 804 Holloway Road, and wine off-licence, 251 Upper Street, both held on behalf of Parkes Chemists, Ltd.; wine off-licence, 91 Grosvenor Road (Francis Davies & Co., chemists); and the wine off-licence, 274 Seven Sisters Road (Mr. E. W. Gough, chemist and druggist). The renewal of the licences had been deferred (see *C. & D.*, March 11, p. 248) in order that the licensees might consider whether they would agree to give an undertaking that they would sell only medicated wines in future. It was intimated that this undertaking had been given with regard to Messrs. Bishop's and Mr. Gough, and that they had accordingly been renewed. Mr. S. C. T. Littlewood, on behalf of Parkes Chemists, Ltd., said his clients were unable to give the undertaking required. To them the matter was a very important one which might affect not only these two particular licences but many others besides. The licences in question had been in existence for about twenty years as unrestricted wine licences. It had been laid down in a judgment of Lord Halsbury that the imposition of a general condition on a class of licence was not in accordance with the proper exercise of judicial discretion. Mr. G. Lacey appeared for Mr. W. D. Richards (holder of the off-licence on behalf of Francis Davies & Co.), and said he did not want to lose a small branch of the business which had been carried on for thirty years. After a private consultation with his colleagues, the chairman again asked whether counsel would be prepared to give an undertaking on behalf of their clients, and on receiving a reply in the negative, the

Bench refused to renew the licence. It was intimated that an appeal was possible.

Other applications for wine off-licences by chemists at recent local Brewster Sessions have resulted as stated:—Mr. W. C. Bradbeer, North Shields (granted); Mr. S. C. Hawkeswood, Stourbridge (refused); Mr. F. D. Taylor, Bolton (refused).

Pharmacy and Poisons Bill

The "Solicitors' Journal," in its issue of March 18, has an editorial note on the Pharmacy and Poisons Bill in the following terms:—

"Introduced again into the House of Lords and welcomed there as an 'agreed' measure, this Bill passed its second reading without much discussion and in an atmosphere that seemed very favourable. So does history repeat itself. The same measure—for the alterations made since last year are comparatively small—passed the House of Lords in very much the same style, but when it reached the Commons stormy weather was speedily encountered, and ultimately opposition became so strong that it perished in the massacre of 'innocents.' It will be interesting to see what reception the Bill will get this time in the House of Commons. Last year the strongest opposition was aroused by the proposal to let loose a new army of inspectors, and to establish what virtually amounted to a new department in Whitehall to control the sale of poisons. We notice that this feature still remains; and it may well be that members of the House of Commons will hesitate to accept any such measure in view of the existing economic stringency and the need for diminution rather than extension of bureaucratic powers. What we find it difficult to understand is why Pt. I of the Bill, which deals with the domestic affairs of the Pharmaceutical Society, could not be passed alone without having the rest tacked on to it. Surely the Society would be well advised to press for that? The recently published official report on the sale of poisons shows quite clearly that the 'doping' trade (which was the principal argument used to press forward the Bill

last time) has been practically wiped out in Great Britain. Why then disturb the existing law and why more inspectors?"

The Bill was to be read a third time in the House of Lords on March 23, while we were going to press.

Inquests

At Birmingham, on March 20, an inquiry concerning the death of Dr. Geoffrey W. Dando, who died in hospital after taking barbitone, resulted in a verdict of "Suicide while of unsound mind."

At another recent Birmingham inquest, a verdict of "Death by misadventure, through an overdose of a narcotic drug or a combination of three drugs" was returned. The deceased was Hilda Barber, Salisbury Road, Moseley.

At Llanelly, on March 8, in the course of an inquest on the body of an infant who was certified as having died from heart failure following influenza, the fact was elicited that the baby had been taken to a neighbour, a woman, to have its ears cut for the cure of rickets, from which it was supposed by its mother to be suffering. This was stated to be an ancient custom. The coroner remarked that the practice was illegal and dangerous, and must be stopped at once: he warned the woman to that effect.

Liverpool

The lecture by Mr. A. J. Jones, Ph.C., A.I.C., on "The Inorganic Chemistry of the B.P.," which was to have been given before the Old Students' Association of the Liverpool School of Pharmacy on March 21, has been postponed until March 28.

The Liverpool Pharmacy Club held the last dance of the season on March 15, at the New Carlton Rooms. Mr. L. Moreton Parry (a member of the Society's Council), accompanied by Mrs. Moreton Parry, were the guests of the evening. Mr. and Mrs. H. Humphreys Jones were unfortunately unable to attend owing to a previous engagement. There were 150 members and friends present, and the evening was voted very enjoyable by all.

"Sterilisation Methods of the B.P." formed the subject of an interesting lecture by Mr. Alec Rae to the Old Students' Association of the Liverpool School of Pharmacy on March 14. The lecturer dealt with the three main methods of sterilisation described in the B.P., and in particular with the use of the autoclave. Some knowledge of bacteriology was necessary, and sterilisation tests could not be carried out under five days. It was important to sterilise all glassware before use. During the discussion, Mr. John Rae said although the medical profession first took up sterilisation it was due to chemists that sterilisation had come into universal use. A vote of thanks to the lecturer was proposed by Mr. J. W. Lamb.

A splendid tribute to the esteem and respect in which Mr. H. Humphreys Jones (principal of the Liverpool School of Pharmacy) is held was the excellent attendance at Reece's Café on March 21, when a gathering of pharmacists and their friends to the number of nearly 250 took part in a dance arranged by past and present students in honour of his twenty-five years' association with the School. An excellent band was in attendance and carnival novelties provided a touch of gaiety to the scene. Dancing continued from 7.45 p.m. to 1 a.m. During the supper interval, Mr. Humphreys Jones expressed his thanks for the good wishes expressed and mentioned that no fewer than 1,500 students had passed successfully through his hands. Tributes to the work of Mr. Humphreys Jones were paid by various speakers.

Miscellaneous

IDEAL HOME EXHIBITION.—Among the attractions to be on view at the Ideal Home Exhibition, which (as previously announced) opens at Olympia, London, W.14, on March 29, is a feature entitled "Rooms of the Scientists," depicting the surroundings of several pioneers in scientific discovery.

SOCIETY OF CHIROPODISTS.—Notice is given in "The London Gazette" of March 17 that the Incorporated Society of Chiropractors has applied for the grant of a charter. Petitions for or against such grant should be delivered at the Privy Council Office, London, S.W.1, on or before April 24.

IRREGULAR PRACTICE OF DENTISTRY.—At Bamber Bridge, on March 17, Joseph Singleton (28), Farington, was ordered to pay costs for practising dentistry without being registered. It was stated that Singleton had studied at Manchester University, but that failing in an examination he lost heart.—At West London Police Court, recently, Howard E. Ainsworth, Lysia Street, S.W., was fined £3, with £3 3s. costs, for a similar offence.

THE ASSOCIATION OF SCIENTIFIC WORKERS.—A "Handbook of Extra-University Research in Pure and Applied Science" for the United Kingdom is being compiled by the Association of Scientific Workers, 70 Victoria Street, London, S.W.1. Institutions devoted to testing materials and products, and to other work not of an original character, are not included within the scope of the scheme. Relevant data, including approximate floor space and annual expenditure, should be forwarded to the office of the Association.

SPORTING EVENTS.—The Ipswich Chemists' Hockey Club (men's team) met Framlingham College at Framlingham on March 8. After a keenly contested game the score closed with a draw of one all. The ladies' team met the Waterloo House team at home on the same date, the match resulting in a score of 3—3. The same (men's team) met the East Anglian School, Bury St. Edmunds, at Ipswich on March 15. After a fast game the chemists found their opponents much too strong, and the game finished with a score for the East Anglian School of 5 goals to *nil*.

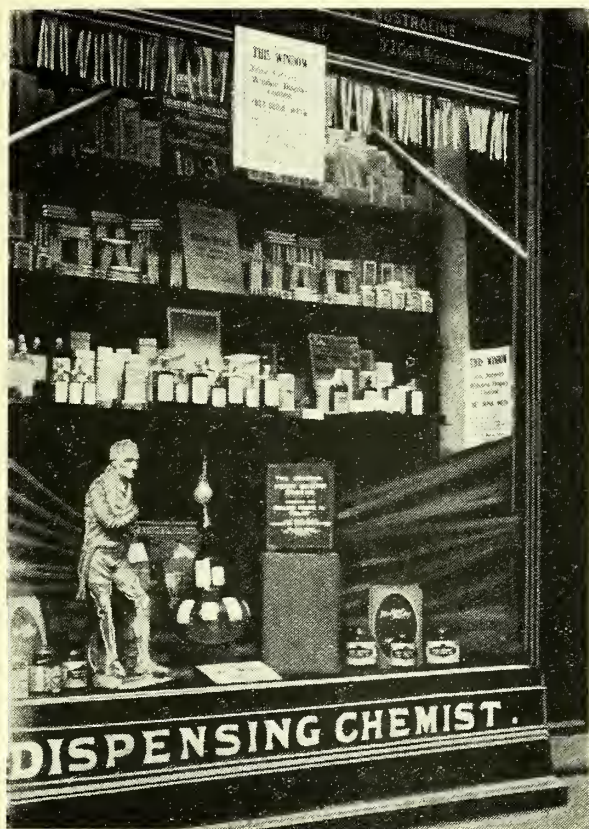
IN THE COURTS.—At Bow Street Police Court, London, on March 17, John E. Ferguson, Marloes Road, W., Sidney Welch, Chingford, and Alfred J. Buck, Chingford, were fined respectively £300, £150, and £60, the first two for corruptly making gifts and the third for accepting such gifts. The offences, it was stated, were in connection with the disclosure of a formula belonging to Bakelite, Ltd.—In Shoreditch County Court, on March 17, James Shears, Radnor Street, E.C., claimed an increase over an award under the Workmen's Compensation Act against J. Maud & Co., Ltd., manufacturing chemists, New North Road, N. Judgment was given for the respondents, who did not ask for costs.

ADVERTISING AND MARKETING EXHIBITION.—Commercial artists are to have an opportunity to display new and original designs for manufacturers at the Advertising and Marketing Exhibition to be held at Olympia, London, W.14, next July. It has been decided to accept entries only from individual designers, and a distinguished judging Committee has been appointed, with Lord Leverhulme as chairman. Suttley & Silverlock, Ltd., have offered to exhibit all the designs displayed at Olympia; and contributors are thus to have, if they desire, a still further opportunity of exhibiting their work. Competitors should apply for entry forms to the Exhibition Manager, The Advertising and Marketing Exhibition, Drury House, Russell Street, W.C.2.

ROYAL SOCIETY OF ARTS.—Particulars of the competition of industrial designs, under the auspices of the Society, to be held at the Imperial College of Science and Technology, South Kensington, London, S.W.7, in June, have been issued, and can be obtained from the secretary of the Society, John Street, London, W.C.2. Intending competitors must apply to the secretary of the Society between May 1 and May 8 for the necessary entry forms, the last day for receiving entries being May 20. The designs will be received at the Imperial College of Science and Technology between June 7 and June 9, and after the judging, which takes place in July, the prize and accepted designs will be exhibited to the public at the Imperial Institute, South Kensington, S.W.7, from August 5 to August 31 (Sundays included). Scholarships and prizes amounting to about £1,500 are offered.

Irish Notes

A Distinctive Window



THE PHARMACY WINDOW OF MR. J. W. O'GORMAN, M.P.S.I., HARCOURT STREET, DUBLIN, IN WHICH IS AN ORIGINAL STATUE OF HENRY GRATTAN BY FOLEY, LENT BY SENATOR SIR THOMAS GRATTAN ESMONDE

Pharmaceutical Society of Ireland

The latest dates for making application for the April examinations are:—Tuesday, March 28, for Registered Druggist examination; Tuesday, April 4, for Pharmaceutical Licence examination; Thursday, April 13, for Pharmaceutical Assistant examination. (Applications must be lodged by 11 a.m. on appointed dates.)

The Licence examination will commence on April 18 on account of April 17 being Easter Monday.

Brevities

Mr. Walter Thorpe, Dublin, has been appointed public analyst for co. Limerick.

Mr. Eugene MacSweeney, Ph.C., has been unanimously elected president of Cork Rotary Club.

A party of some twenty-five Catholic Dublin pharmacists have recently made a week-end retreat at the Jesuit Fathers' House of Retreat, Milltown Park, co. Dublin.

S. Connor & Sons, Newry, have been given the contract for the supply of medical and surgical appliances to Cookstown Union, and Fred Storey, Ltd., Belfast, the contract for medicines.

The tender of R. Sumner and Co., Ltd., Liverpool, for medicines has been accepted by the Limavady Board of Guardians, and that of Fred Storey, Ltd., Belfast, for medical and surgical appliances.

In fining a defendant on four summonses for making false declarations for the purpose of procuring methylated spirits on numerous dates in 1932, the Larne stipendiary magistrate remarked, with reference to two pharmacies at which the defendant was stated to have bought the spirits, "I cannot help saying that I do consider these chemists are extremely lax."

Belfast

The sum of £6 2s. 9d. has been awarded by Belfast Corporation to Mr. Samuel Gibson, Ph.C., for damages to plate glass.

An enjoyable dance was held by the Alembic Society of the Municipal College of Technology in the Central Hall on March 17. Most of the pharmacy students of the College were present, as well as local chemists.

A memorial brass tablet was unveiled by Mr. William Doig, Ph.C., to the memory of his father, Mr. William Doig, R.D., at the morning service in Fisherwick Presbyterian Church, Belfast, on March 19. The tablet has been presented by the late Mr. Doig's widow. Dedicating the memorial, Rev. John Waddell, M.A., said Mr. Doig's name had been closely associated with the congregation for half a century.

The joint Public Health, Maternity and Child Welfare and Tuberculosis Committees of Belfast Corporation have awarded the contracts for drugs, dressings, instruments, etc., for the Purdysburn Fever Hospital, the Municipal Sanatorium, and other institutions to Fred Storey, Ltd., 73A Ann Street, Belfast; John Clarke & Co. (Successors), Ltd., Donegall Square West, Belfast; Mr. Thomas McGurk, Ph.C., Cromac Square, Belfast; Robinson & Sons, Ltd., Wheatbridge Mills, Chesterfield; B. Pratt & Co., Ltd., Dominion House, Bartholomew Close, London, E.C.1; Cox Nickolds & Co., 300a Borough High Street, London, S.E.1; and Wm. Allen & Son, Ltd., 170 Newtownards Road, Belfast. The Education Committee of the Corporation has awarded the contract for medical requisites to Fred Storey, Ltd., Belfast; and for dental requisites to the Amalgamated Dental Co., Ltd., Edinburgh. The contracts for medicines, drugs, and medical and surgical appliances for the Maternity and Child Welfare Centres were awarded to Fred Storey, Ltd.; T. E. Stephenson, 17 Wellington Street, Belfast; and J. Clarke & Co. (Successors), Ltd.

Scottish Notes

Aberdeen Reminiscences

There are some interesting glimpses of Old Aberdeen notables in a little volume of reminiscences which has just been published by Mrs. Katherine E. Traill (widow of the late Professor Traill). Particularly interesting to those connected with pharmacy is the pen-picture of "Druggie" Ross, who, in his day, was a well-known and picturesque figure. He was chemist and postmaster too, and always wore a black velvet jacket and a smoking cap of the same material. Whenever business was slack he was to be seen marching up and down the pavement in front of the Old Aberdeen post office, pipe in mouth. Mr. Ross—so at least Mrs. Traill suggests—could not have made a fortune out of selling drugs to such healthy people as those of the Old Town "unless he received a very large percentage on Gregory's powder, which was the only medicine, it seems to me, that was ever prescribed for us." "Druggie" Ross was one of the old school—and he did not like Professor Bain, then one of the notable personalities in the University of Aberdeen. Mrs. Traill—then Miss Katherine Milligan—defended the Professor, however, and pointed out what a clever man he was. "Clever, yes, and so is the Devil," was the uncompromising reply of "Druggie" Ross.

Brevities

A shopping week will be a feature of the "spend wisely" campaign to be launched in Edinburgh in the near future.

Mr. George Dowie, chemist and druggist, 17 Jordan Lane, Edinburgh, has been appointed to represent A. de St. Dalmas and Co., Ltd., Leicester, in Scotland, as from March 20.

An outbreak of fire occurred on March 12 at the premises of Mr. George M. Sidey, chemist and druggist, 138 North High Street, Musselburgh. Prompt action by the police and the fire brigade prevented the outbreak from assuming serious proportions.

Taxation of Medicines

By Manufacturer

THE writer of the article in the *C. & D.* of March 18 on the taxation of medicines has covered the ground pretty thoroughly, but a few comments and suggestions may be appropriate. Why should medicines be singled out for taxation, any more than many other classes of goods? The effect of a tax upon medicines is that of a restricted sales tax; surely the logical thing to do would be to impose a sales tax upon all articles sold; this would raise considerably more revenue than that upon medicines.

But if medicines are to be taxed, let the tax be placed upon "patent medicines," to use an expression that is not correct but is well understood; why should the legitimate drug trade have to bear part of the burden?

There are three tests that may be applied to a "proprietary" medicine to determine whether it comes within the dutiable class:—(a) Is it held out or recommended for the prevention, cure or relief of certain complaints and diseases? (b) Is the price charged generally higher than for a similar article or preparation sold in the drug trade in the usual way of business? (c) Is there a claim that it is made by a secret process, or that it is prepared and sold only by a certain person?

Medicines (apart from B.P. or B.P.C. preparations) sold by retail chemists to-day may be broadly divided into three groups:—(1) Those that come within the three definitions given above. These may be distinguished by a trade mark or brand name. (2) Medicines for which no secret is claimed in the manufacture and no proprietary rights are claimed. Their sales are usually

effected, certainly in the first place, by the medical man, who sends his patient for them to the chemist; an order or prescription is usually written by him. (3) Simple preparations sold by the chemist, usually known as packed drugs; their sale constitutes one of the present privileges of pharmacists.

New Method of Taxation Suggested

In my opinion any tax should be imposed only on preparations in the first group. As to the method of imposing the tax, there seems to be a suggestion abroad that the tax should be a percentage upon the retail selling price. This percentage could be varied from year to year, and it would have the advantage that it could not be passed on so easily as a definite charge such as 3d., 6d., etc. Stamps would be purchased, as at present, but payment would be on an agreed scale equal to the statutory percentage which would be the tax for the year. I agree that a heavier licence fee should be imposed upon those who sell "patent medicines." This would probably have the effect of cutting out a good many dealers of the general shop type, and would direct more customers to the chemist.

Whether legislation in the form of a new Patent Medicines Act is imminent I do not know, but there is likely, no doubt, to be an attempt on the part of those who are now paying the tax on their goods to try to influence the Treasury to widen the basis of the tax and so bring in many classes of articles that hitherto have not been taxed. Efforts must be made to safeguard the birthright of the pharmacist to sell "known, admitted and approved remedies" in any projected legislation; and those manufacturers who, hitherto, have been immune from tax because their goods are not advertised to the public must also watch that their interests are safeguarded.

Topical Reflections

By Xrayser

Perfumes and Toilet Aids

ought to become peculiarly a chemist's preserve, in view of the great trouble you take to keep us up-to-date on the subject, as in last week's issue of the *C. & D.* But if chemists are to build up a really satisfactory business in those lines, and to maintain it when captured, it seems to me that they will need to regard it much more seriously than they do generally. It is not sufficient to dabble a little in perfumes and toilet aids, to display in windows or on counters specially cheap lines of the kind. My view of the matter is that it only pays us to stock and sell perfumes (for example) when of the highest quality, at prices that would make some of our brethren gasp. The lucrative sale of such fancy goods is one where the minimum price for an article is 5s. or, preferably, 7s. 6d., and experience goes to prove that there is plenty of business to be done with goods at these and higher prices. Not only so, but the sales of such articles can, in a suitable environment, be effected more easily than sales of cheap lines can be pushed elsewhere.

Taxation of Medicines

is hardly likely, one would think, to fade from recollection as a means of raising national revenue, and there is probably much more than rumour behind prevailing talk of fresh legislation on the subject being introduced. I was pleased to see how, in the article you published last week (p. 298), the point was stressed that, in the first place, the taxation of medicines was intended to discriminate between legitimate practitioners and quacks. Medicines supplied by doctors and chemists were to be distinguished from those offered by unqualified persons, with the accompaniment of advertisement or other means of recommendation. This

important point soon became obscured, and it is difficult to refrain from blaming those responsible for looking after the interests of chemists and druggists in early days for allowing that to happen. If, instead of proper recognition of the chemist's privileges under the Medicine Stamp Act being delayed until the case of *Farmer v. Glyn-Jones* was decided, the existence of those privileges had been known and acted upon from the beginning, our position as regular practitioners might have been much better assured than it is today. Now we may have to fight for special recognition; but the struggle will be well worth while.

The Publicity Scheme

that is being backed by a Leeds manufacturing house (*C. & D.*, March 18, p. 283) commends itself to me as a most excellent one. Exhibition of the film that you describe should go far towards educating the public to a proper acquaintance with the responsibilities attaching to conduct of a chemist's business. Nowadays in particular, when so much of our business consists in the handing over the counter of ready-packed goods, simple drugs among the rest, it must at times suggest itself to our customers that we differ little from other traders. But with the extra knowledge of what is involved in our personal guarantee, and of all that has preceded the handing over of the goods ready packed, the public ought gradually to be made conversant with the idea that we render special service for which there ought to be remuneration over and above the bare cost of goods supplied *plus* the ordinary trader's profit. If the service we render as experts is ever to be recognised by the public as something that chemists and druggists alone are competent to furnish, I can imagine no better way of securing the required recognition than by the exhibition of such a film as was described.

Legal Reports

Breach of Contract.—In Margate County Court, on March 9, D. T. Evans, Ltd., chemists, High Street, claimed the sum of £8 as damages for breach of contract from Mr. Gerald F. Wadham, Horsham. The plaintiffs were represented by Mr. S. J. Wilson Price, barrister. Mr. D. T. Evans, J.P., managing director of Messrs. Evans, said that in July 1931 he wanted extra help, and inserted an advertisement in *THE CHEMIST AND DRUGGIST* Supplement for a competent assistant. The defendant, among others, replied. He was accepted, subject to references. Witness took up the references on the following day, and on the day he received replies wrote telling defendant that they were satisfactory and confirming that he would commence his employment on July 18. The defendant wrote declining to come, and stating that as witness had been such a long time writing he had fixed up elsewhere. Giving judgment for the plaintiffs, with costs on Scale A, the judge said he hoped that as a result other people would be more careful over their contracts.

A Deposit in Cough Mixture.—In the King's Bench Division of the High Court, London, on March 20 and 21, before Mr. Justice Humphreys and a common jury, Mr. Charles Fargher, chemist and druggist, Splott Bridge, Cardiff, sued Thomas Hodgkinson, Prestons & King, wholesale druggists, Bishopsgate, E.C.2, claiming damages for alleged breach of warranty in respect of two barrels of oxymel of squill supplied to him. The defendants denied that they warranted the barrels as alleged or at all.

THE PLAINTIFF'S CASE

Mr. Trevor Hunter, K.C., who with Mr. H. H. Roskin appeared for Mr. Fargher, said that his client had carried on business in South Wales for over forty years. During that time he had been making a cough mixture sold under the name of "Fargher's Balsam of Mulberries," which had acquired a considerable reputation. Mr. Fargher sold the mixture in his own shop and to wholesale and retail chemists. The mixture contained eight ingredients, the basic one of which was oxymel of squill. It was a condition of the purchase of oxymel of squill from the defendants that it should be of a kind and quality known as oxymel scillæ, B.P., 1885. The allegation was that in October 1928 the defendants sold Mr. Fargher two barrels each containing 5 cwt. of oxymel of squill which was warranted to be oxymel scillæ, B.P., 1885. That supply, it was said, was not made from pure honey and contained about 20 per cent. of sucrose. As a result of that, Mr. Fargher contended, the whole of the cough mixture in which the oxymel was used was worthless, and he had suffered damage. Mr. Fargher gave evidence in support of his case, and was followed by Mr. William Ernest Benjamin Mann, chemist and druggist, a former apprentice. Mr. Mann said there was a thick deposit at the bottom of certain bottles of the cough mixture which he noticed when he was in the shop. The Judge: Did it have a "shake the bottle" notice on it?—Yes, that is customary. The Judge: That does not mean anything?—No. (Laughter.) You could not shake away the deposit?—No. Mr. Thomas Tickle, B.Sc., Ph.C., gave expert evidence to the effect that there was about 20 per cent. of cane sugar in the oxymel.

THE DEFENDANTS' CASE

Mr. Glyn-Jones, opening the case for the defence, said his clients had been making pharmaceutical preparations for many years and had a high reputation. The honey from which this oxymel of squill was made was honey from a good source. The oxymel was prepared in the defendants' laboratories by skilled and competent work-people. Nobody except Mr. Fargher had complained in the slightest of the quality of the defendants' oxymel of squill. Therefore, in counsel's submission, something must have gone wrong at Mr. Fargher's end. Mr. W. James Beardsley, managing director of National Drug

Industries, Ltd., said he was a partner in the defendant firm which was now amalgamated with National Drug Industries. They had never before had a complaint about their oxymel of squill, which was never made with anything except honey. Mr. James J. Hanchard, laboratory foreman, Mr. Frederick J. Bolton, assistant analyst to National Drug Industries, Ltd., and Mr. Percy A. W. Self, B.Sc., Ph.C., also gave evidence. Mr. Glyn-Jones, addressing the jury, said that on the evidence the jury could not be satisfied that there was anything wrong with the oxymel of squill which the defendants supplied.

Mr. Trevor Hunter, K.C., for Mr. Fargher, submitted that the trouble in plaintiff's balsam was caused through the oxymel of squill not being as it should be.

SUMMING UP AND VERDICT

Mr. Justice Humphreys, summing up, said that it was now admitted that the defendants did warrant the two barrels of oxymel of squill according to the formula in the British Pharmacopœia, 1885. The burden of proof in this case was upon Mr. Fargher. The defendants complained that plaintiff did not disclose, during the course of the preliminary proceedings, all the matters which would have given assistance to them. The defendants were a firm of established reputation, and it was said for them that they had never had any complaints before. Mr. Fargher could also say that he was jealous of his reputation. Both the parties were entitled to say that they objected to their reputations being assailed, but it was for the jury to decide. There was no doubt that the second barrel was examined by a competent expert, who averred that he found cane sugar, which was an adulterant, in it. It was possible that the honey supplied to the defendants themselves was not pure, and that might be an explanation of the matter. His lordship left two questions to the jury, who after retiring answered them both in the affirmative:—(1) Was one of the casks adulterated with cane sugar? (2) Was that the cause of the deposit in the bottles of cough mixture? The jury, after answering "Yes" to both questions, were discharged, and it was stated that the case would be mentioned at a later date.

Price-Protection Case.—At Clerkenwell Police Court, on March 11, Bernard Lewis (20), salesman, Fairholt Road, N., was charged with attempting to obtain chemists' sundries at 7 Clerkenwell Road on February 23 by means of a forged order, knowing the same to be forged. Mr. John Maude was counsel for the prosecution, and Mr. Jonathan Harris, solicitor, appeared for the defence. Mr. Maude said that Lewis went to May, Roberts & Co., Ltd., and produced what purported to be orders from a retailer named Angus, a chemist. It transpired that the defendant had gone to the length of having forms printed, pretending that they were those used by Mr. Angus. On February 17 he went to the firm, presented what appeared to be an order from Mr. Angus and obtained goods, for which he paid cash. It was not suggested that he had come with forged orders with the intention of never paying. The Magistrate (Mr. Campion): Motor dealers have a way of circumventing their price lists. Mr. Maude: It is not a very serious matter in regard to this particular man, but it is of great importance to the trade which I am representing. Proceeding to discuss the legal aspect of the case, Mr. Maude sought to define the phrase "intent to defraud." "An exact definition of fraud has always been avoided," commented Mr. Campion. "According to you, this was a careful system of fraud. The question is whether it is a criminal matter." Further outlining the circumstances, counsel said that after his first visit a watch was kept for Lewis. He came again on February 23. There were all the elements of deceit. Upon the suggestion of the magistrate, counsel agreed that the words "and with intent to defraud" should be added to the charge. The value of the sundries was placed at £2.

The first witness was Mr. James Angus, chemist and druggist, Mile End Road, who said he had done business with May, Roberts & Co., Ltd., for several years past. The two forms produced had his name printed on them, but they had not come from him, and the signatures upon them were not in his handwriting. He went to the premises of May, Roberts & Co., Ltd., on February 23. The prisoner was standing near a counter when he entered, with two other men, but at once went out on seeing him. Two assistants jumped over the counter and stopped Lewis. He gave his name as J. Cohen, of Dean Street, W.I. He said that he had met a man named Levi, and that this man had asked him to go to May, Roberts & Co., Ltd., for him. He said that he had arranged to meet Levi at "the Corner House" at 4.30. Corroborative evidence was given by Mr. William Trimley, a clerk to May, Roberts & Co., Ltd. When it was suggested to Lewis, said the witness, that he should be taken to the address he had given in Dean Street, he said he would rather be arrested, though no one had then suggested arrest. The witness added that a record of the order, although it was a cash transaction, was retained by the firm. The original order form was kept. Mr. George J. Gaisford, a director of May, Roberts & Co., Ltd., said that the previous witness and two others were employed in the cash sales department. Counsel: In your cash sales whom do you sell to?—The bulk of our business is with retail chemists. We also supply allied traders, such as drug stores and a few general stores. We only supply *bona-fide* retailers. The Magistrate: The position is that this man would not have got these goods if he had not adopted a subterfuge of some kind. The position of this firm is perfectly understandable. They take every step they can to keep up the proper trade prices of these trade articles. Detective Grimmer gave evidence of arrest. Cross-examined, witness agreed that the accused was a respectable man. Having obtained a list of the comparative trade and retail prices of the goods on the orders produced, the magistrate observed: "There is only a paltry profit for a chemist in this sort of thing." Mr. Harris said the amount of the order was £2 10s. in each of two cases, and a third order taken to another firm was for £2. He would not attempt to justify the accused, who had no doubt acted very foolishly, but was there an attempt to defraud?

DECISION

The Magistrate: Trying to dodge a trade list is a reprehensible thing, but I think it is miles away from criminality. You are entitled to dodge a trade list if you can. I am not saying it is wise. It is in the interests of good trading that there should be these careful conventions arranged by traders amongst themselves. In many distinguished and important trades it is not merely a protection of the trade but also of the public. It ensures that people who bring out standard articles shall not have them imitated or put up in improper ways. Mr. Maude said that as against this particular individual there was no desire to press the case; but where there was an attempt to get something to which one was not entitled, in this way, it did strike at the position of a great many people in this country and should not be outside the purview of the criminal law. Suppose this had been a wholesale deceit and a large quantity of goods had been thrown on the market at cut prices? The Magistrate: You could then have said that there was not only a technical intent to defraud but a substantial reason. Mr. Harris, in reply to the magistrate, said he was prepared to say that the prosecution had acted quite justifiably. Mr. Maude said that in view of this the prosecution would be prepared to withdraw the charge. In permitting this course to be adopted, the magistrate said Lewis had done something which was possibly open to a criminal interpretation. The prosecution had been conducted with conspicuous fairness, with the desire to see that an end was brought to a course of conduct which, if done on a large scale, might have very serious consequences indeed. Nothing that had happened had decided one way or the other the technical point involved in the case, which should serve as a warning, and it was open to the prosecution to pursue any future case with greater vigour.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office

H. W. OSBORNE, LTD. (P.C.).—Capital £500. Objects: To carry on the business of chemists, druggists, etc. Solicitor: C. E. Hart, 1 and 2 Holy Trinity Churchyard, Guildford.

S. E. S. PRODUCTS, LTD. (P.C.).—Capital £500. Objects: To carry on the business of manufacturers of and dealers in chemical products, etc. R.O.: 84 Corbetts Tey Road, Upminster, Essex.

PINAUD, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of manufacturers of perfumes, scents, pomades, creams, and toilet requisites of all kinds, etc. Solicitors: Crosse & Sons, 38 Bedford Square, W.C.1.

CIMEX, LTD. (P.C.).—Capital £3,000. Objects: To acquire the manufacturing and/or selling rights for Great Britain of the products known as "Cimex," "Viratsin," "Diluvial," and "Garan," and the rights of using the said trade names, and to carry on the business of manufacturers of and dealers in insecticides, fumigants, disinfectants of all kinds, etc. R.O.: 68 Victoria Street, London, S.W.1.

BRITISH PEPPER & SPICE CO., LTD.—An issue was made on Tuesday, March 21, by the British Shareholders Trust, Ltd., of 110,000 £1 ordinary shares at par, for the British Pepper and Spice Co., Ltd. The company has been formed to acquire the whole of the issued share capital of Drysdale Dennison and Co., Limited (est. 1850), and White, Palmer and Co. (1931), Ltd. (est. 1883), wholesale pepper and spice merchants and grinders.

SAVORY & MOORE, LTD.—The issue of £250,000 new debenture stock met with a good reception. The subscription lists were opened on Friday, March 17, at 9 a.m. and were closed at 9.15 a.m., owing to the fact that the issue was heavily over-subscribed. We understand that applications for approximately a million pounds were received and that the letters of allotment and of regret were posted on Tuesday, March 21. The new stock carries interest at 5 per cent. and was offered to investors at par.

EVANS SONS LESCHER & WEBB, LTD.—The eighth ordinary general meeting was held on Friday, March 10, at the Exchange Station Hotel, Liverpool. Mr. J. Herbert E. Evaris (chairman of directors) presided. In moving the adoption of the balance-sheet and report (*C. & D.*, March 11, p. 251) the chairman said: The improved result in our trading profit has been attained in a year of exceptional difficulty; although I believe it to be still below what the company is capable of earning in normal times. It affords evidence of the elasticity of the business, its power to adapt itself to the vicissitudes of the times, and to meet exceptional difficulties in a buoyant spirit, and with a definite measure of success. Further, it is justification of our policy—the development of our factories, and the sale of our specialities. It is largely due to the success of this policy that we have been able to earn the profit shown on our accounts. While there has been a certain increase in the volume of business transacted during the year, the most satisfactory feature is that that increase has included a higher proportion of goods of our own manufacture, and this embraces our chemical and biological specialities. The chairman then commented on various factors which have been, and still are, adverse generally to normal trading conditions, such as exchange restrictions, tariff barriers, etc. The report of the directors and the accounts for the year ended December 31, 1932, was seconded by Mr. T. Edward Lescher, O.B.E., and carried unanimously. The retiring directors were re-elected, and the meeting terminated with a vote of thanks to the chairman.

Pharmaceutical Society of Ireland

Council Meeting

THE March meeting of the Council was held at 67 Lower Mount Street, Dublin, on March 14. Mr. P. Brooke Kelly (president) in the chair. Other members of the Council present were Messrs. P. J. Fielding, F. J. Fitzpatrick, D. W. F. Boyd, C. Cremen, J. T. Dwyer, J. Gleeson, M. J. Kieran, J. McCormack, J. A. O'Rourke, M. J. Parkes, Dr. J. A. Mitchell, Miss F. M. Flood, and Sir Thomas Robinson. Apologies for inability to attend were received from Messrs. W. J. McKnight and J. F. Costello.

THERAPEUTIC SUBSTANCES ACT

Arising out of the minutes of the last meeting, Dr. MITCHELL said he appreciated the compliment the Council paid him in appointing him to represent the Council on the Advisory Committee being set up under the Therapeutic Substances Act. As there was some uncertainty and ambiguity about the work of the Committee, he would like to have the matter put on the agenda of one of the Society's committees to get their views on the questions that might arise. There were about half a dozen firms in England manufacturing these therapeutic substances under licence, and he was wondering if the Free State Government would allow the products of these firms to come in without further ado. There was also the question of licences to import. He would like to have some direction as to the attitude he should adopt on these questions. It was decided to put the matter down on the agenda of the House Committee.

CORRESPONDENCE

Dr. P. J. Ward wrote thanking the Council for their expression of sympathy with him on the death of his wife.

The following letter, addressed to the registrar, was read from the Rev. C. B. Armstrong, secretary of the Schoolmasters' Association: "Dear Sir,—I brought your letter of January 23, 1933, and the new draft Regulation of the Pharmaceutical Society of Ireland, before the Committee of the Schoolmasters' Association yesterday, and I am directed to inform you that the Association welcomes the modification which has been adopted, and considers that it will more closely meet the needs of schools. With thanks for the attention which your Committee has given to this matter . . ."

CHANGES OF ADDRESS AND RESTORATION TO REGISTER

The following changes of address were notified:—Miss Eileen O'Byrne from 3 Botanic Road, Glasnevin, to c/o Mrs. Clarke, Folka Lodge, Finglas Bridge, co. Dublin; Miss E. M. Maher from 12 Shelbourne Road, Dublin, to 11 Carlingford Terrace, Drumcondra, Dublin. Mairead bean ni Uallachain (*née* Leavy) and Mr. Ed. J. Burke wrote asking to be restored to the Register of Registered Druggists. The request was acceded to.

COMMISSION ON REGISTRATION OF SHOPS

The Ministry for Industry and Commerce wrote forwarding a memorandum on the Commission on Registration of Shops inviting the Council to give evidence before the Commission.

THE PRESIDENT said the matter was one primarily for the Dublin and Provincial Retail Drug Association, but the Society should watch the work of the Commission as a precautionary measure.

SIR THOMAS ROBINSON thought the Council should take up a strong position in the matter and protest against pharmacists being interfered with. No legislation should be allowed to interfere with the statutory right of pharmacists to practise.

MR. O'ROURKE said evidence should be given before the Commission on the multiple-store problem.

THE PRESIDENT: I went through the memorandum. We could say something on nearly every clause in it.

MR. PARKES: I notice that the retail tobacconists, confectioners, and fruit merchants refused to give evidence.

SIR THOMAS ROBINSON: We may be stultifying ourselves in giving evidence. We have statutory rights.

MR. FITZPATRICK suggested a special Committee of the whole Council go into the matter.

On the motion of MR. O'ROURKE, seconded by DR. MITCHELL, it was decided to refer the matter to a Special Committee of the whole Council, to meet at 11 a.m. on April 11.

LAW COMMITTEE

The Council considered the adjourned report of the Law Committee to the effect that the appointment of a solicitor residing in Dublin was desirable.

THE PRESIDENT said: I am, and always have been, of the opinion that it is essential that the Society should have a law adviser resident in Dublin. The resolution appointing Mr. Kierans specifies that it is subject to the condition that he or the Society are at liberty to terminate the appointment at any time. I therefore move "That the employment of Mr. Kierans as legal adviser to the Society be now terminated."

MR. FIELDING seconded the motion, on which the voting was as follows:—For the motion—The president, Messrs. Fielding, Fitzpatrick, Dwyer, O'Rourke, Parkes, Dr. Mitchell, Sir T. Robinson, and Miss Flood (9). Against the motion—Messrs. Cremen, Gleeson, M. J. Kieran, McCormack (4). Mr. Boyd did not vote. The motion was declared carried.

MOTIONS ADJOURNED

The House Committee's report was submitted and adopted.

On consideration of the Schools Committee's report and recommendations regarding recognition of schools for courses, the following motions were proposed by MR. FIELDING and seconded by MR. PARKES:—

"That the following regulations be made governing the acceptance of certificates from any other school than that of the Society, and that all Regulations to the contrary are hereby rescinded:

"That the certificate must show that the student has attended at least 75 per cent. of the lectures of a complete course on the subject. In the case of technical schools, this is to be taken as attendance at a complete course from October to May inclusive."

The second motion was as follows:—"That the following Regulations be made governing the recognition of schools of practical pharmacy:

"(a) The teacher must be a member of the Pharmaceutical Society of Ireland.

"(b) The syllabus must be submitted to, and approved of by, the Council.

"(c) The school and equipment shall be inspected regularly by a Committee of the Council, of which the registrar shall be a member. The Committee shall report to the Council the result of their inspection.

"(d) The authorities of the school shall undertake in writing to pay the expenses of any such inspection."

MR. MCCORMACK asked if it would not be necessary to have notice on the agenda of such a matter.

THE PRESIDENT: The matter was referred back to the Schools Committee by the Council. These are the recommendations of the Committee.

MR. CREMEN: Members of the Council would probably like time to consider the matter.

SIR THOMAS ROBINSON said he did not object to the matter in the motions, but thought, in view of the fact that they involved the making of new regulations, they should appear on the agenda. It was unanimously agreed to postpone consideration of the motions to the next Council meeting and to have them appear on the agenda.

OTHER BUSINESS

The report of the Poisons Schedule subcommittee was submitted and approved.

The registrar reported on the deaths of Messrs. W. J. McKane, a life member of the Society, John Dunlop, R.D., and S. R. Hamilton, R.D.

Mr. P. J. Killacky, M.P.S.I., was re-elected examiner for the Assistants examination for the year ending March 1, 1934, and Mr. M. J. O'Callaghan, M.P.S.I., was

re-elected examiner in botany and materia medica for the Licence examination for the same period.

On the motion of the President, seconded by Mr. FIELDING, it was agreed "That the pharmacy examiners be instructed to set separate pharmacy papers under their own names."

The following were elected to membership of the Society: Messrs. Patrick Teehan, L.P.S.I., and Stanley Wilson, L.P.S.I.

Pharmaceutical Society of Northern Ireland

Council Meeting

THE March meeting of the Council was held on March 17, the president (Mr. R. I. Edwards) in the chair. There were present also Messrs. Fred Storey, J. C. Culbert, J. E. Connor, H. Todd, W. Martin, S. H. Forrest, H. F. Moore, G. W. McCann, and Dr. Acheson. Mr. D. L. Kirkpatrick (secretary) was in attendance. Apologies for absence were received from Sir Thomas McMullan, Mr. John Maxwell (vice-president), Mr. S. S. Badger and Professor Small.

CORRESPONDENCE

The Ministry of Home Affairs wrote forwarding an order for £706 9s. 9d., half licence fees due to the Society. The Ministry also wrote approving of the examiners appointed at the February meeting, and it was intimated that the Municipal College of Technology would be available for the examinations in June.

LECTURES ON THE PHARMACOPŒIA

The principal of the Municipal College of Technology wrote that it was proposed to arrange for a series of lectures dealing with the changes introduced in the B.P., 1932, during the summer term as follows:—(a) New features in pharmacy and materia medica, by C. W. Young, Ph.C.; (b) outstanding features in chemistry, by Henry Wren, M.A., D.Sc., Ph.D. Full particulars would be circulated as soon as definite arrangements have been made.

THE SECRETARY said some members would like a course in practical pharmacy.

MR. CULBERT thought that pharmacognosy should be included also.

MR. STOREY mentioned that the Chemists' and Druggists' Society would shortly have another lecture on matters arising from the new B.P.

THE SECRETARY said he would get opinion in the interval from chemists as to what was really wanted. He believed the class would be a success once it got properly going.

Several members expressed the hope that the class would be well supported, and after further discussion the matter was referred to the Education Committee.

DENTISTS REGISTER

The secretary of the Pharmaceutical Society of Great Britain forwarded a list of dentists erased from the Dentists Register on January 1, 1933, in Northern Ireland:—W. Adair, 69 Hollywood Road; J. Donnelly, 93 City View Terrace; J. P. McWilliams, 146 Ormeau Road; T. M. Meharg, 124 Great Victoria Street; F. C. G. Rattie, 281 Shankill Road, all in the city of Belfast.

MR. CULBERT asked whether they would get notice if a man was restored to the Register.

THE SECRETARY replied in the negative.

DEPUTATION TO MINISTRY OF HOME AFFAIRS

The deputation to the Ministry of Home Affairs regarding the sale of drugs by unqualified persons presented their report.

THE PRESIDENT said that Mr. Storey and he attended with the representatives of the Ulster Retail Drug Trade Association. They decided to ask that the sale of all substances contained in the B.P., with certain specified

exceptions, be restricted to qualified persons. They made the B.P. the foundation for their approach to the Ministry.

MR. STOREY dealt with the minutes from the Council point of view. He said that the deputation was brought about by a letter to the Council from the U.R.D.T.A., who thought they were not taking active enough steps to get something done seeing that grocers and others were selling drugs. After consultation with them, the attitude they took up was this:—"We are administering an Act of Parliament brought into force by the Ministry and the Government, and they insist we must get a certificate for which we must study the B.P. and know every article in it. Therefore, it is up to the Government to protect us from unqualified persons." They recognised that this must be dealt with from the point of view of the welfare of the public, and they gave instances of cases where the sale of these things by unqualified persons had proved a danger to the public. They maintained that these articles that the Government insisted on their knowing all about should be confined to the chemists. They were asked whether, if they got what they wanted, they give up those things they were selling that did not belong to the trade, and for his part he said "Yes." It was pointed out that cheap jewellery, chocolates and other things were sold by some chemists. The Home Ministry representative asked if they could get a list of articles which they could show would be a danger or detriment to the public, and if they supplied that he thought they would have a better chance of getting something. That was how the matter was left. With reference to the potent schedule they were told that until the legislation in Great Britain was on the statute-book nothing would be done, which meant that for at least one or one and a half year there could be no legislation here. For himself, he was opposed to having a Poison Board in Northern Ireland.

THE PRESIDENT said they got an assurance nothing would be done in the way of legislation without consulting the Council.

MR. STOREY said the question was whether they should go and make a list or wait until they saw what was going to happen in England. They had brought up the case of the restrictions imposed in the Dominions and on the Continent.

MR. CONNOR asked why an unqualified man should be allowed to sell anything containing spirits.

DR. ACHESON said so long as the duty on the spirit was paid the Excise did not interfere.

THE PRESIDENT said they had been well received, and on the whole they could report progress.

The report was adopted, and the thanks of the Council were tendered to Messrs. Edwards and Storey for their services.

MR. CULBERT urged the necessity of members forwarding particulars of cases where injury had been done through the sale of drugs by unqualified persons, and the PRESIDENT endorsed this view.

MEMBERS ELECTED

Mr. Peter Tohall, Moy, co. Tyrone, and Miss Mary McAnallen, Mandeville Street, Portadown, were elected members of the Society, on the motion of MR. TODD, seconded by MR. MARTIN.

Ulster Retail Drug Trade Association

THE annual meeting of the Ulster Retail Drug Trade Association was held in the Grand Central Hotel, Belfast, on March 15, the president (Mr. A. E. A. Davis) in the chair. There was a fair attendance. This was the first annual meeting since the amalgamation in 1932.

At the outset the PRESIDENT welcomed the members, especially Mr. Dale, who had come from Londonderry.

Mr. J. C. CULBERT proposed a vote of condolence with the relatives of the late Mr. Samuel Suffern, who had died during the year. This was passed by a standing vote.

THE SECRETARY (Mr. W. Blair) said they had invited representatives of the Proprietary Articles Trade Association to be present, but they were unable to come. They hoped to be with them at a later date. He announced apologies from Messrs. R. I. Edwards (president of the Pharmaceutical Council), C. B. Abernethy, S. Gibson, R. Linehan and G. Hamilton. The secretary of the Londonderry Association had also sent a letter of good wishes, while Mr. John Smith, the Irish representative of the Executive of the P.A.T.A., was unable to be with them owing to the railway strike.

A SUGGESTION ON PRICES

MR. S. DALE, on behalf of the Londonderry chemists, said they felt that the Association had been stampeded into getting prices down too low. They felt that the N.H.I. scale did not represent anything that would give a fair profit. He would like to remind the younger men especially that it did not do to have their dispensary charges on the actual cost of the materials. Derry thought they were going too far in the matter of prices, and that they might get a better price for the sale of drugs that were in the hands of chemists. Tincture of iron, for instance, should be 6d. an oz. instead of 4d. They might get a little better price for drugs and prescriptions, with no disadvantage to the public, and a little advantage to the chemist.

REPORTS AND DISCUSSION

The report of the Executive Committee, which was taken as read, contained the following:—

The membership totals 307, and, in this respect, it is a matter of regret that there are quite a number of chemists who, notwithstanding all inducements, still remain outside the Association. Your Committee will submit, for your consideration, proposals which, if deemed advisable to adopt, may, in a measure, assist in remedying this state of affairs. The Committee deeply regrets having to record the death, in August last, of Mr. Samuel Suffern, a past-president and honorary vice-president of the U.R.D.T.A., and an esteemed member for many years of the Association. During the year there were eleven Committee meetings, two special Committee meetings, and ten subcommittee meetings held, and the attendance at these different meetings was most satisfactory.

Following negotiations with the Ministry of Labour, the terms of service (N.H.I.) relating to medical requisites were amended which obviated the necessity, hitherto required, of stocking various items seldom prescribed, or of a perishable nature. Your Committee has been greatly concerned about the increasing danger to the public welfare resulting from the selling of drugs, etc., by unqualified persons, who, from want of knowledge, are not in a position to safeguard the public by advice or caution regarding the proper method of use or application. Following representations made by your Committee to the P.S.N.I. a joint deputation from that body and the U.R.D.T.A. waited upon the Ministry of Home Affairs and submitted proposals necessary to the public welfare, and stressing the urgent need for legislation in this respect. The representative of the Home Office, in replying, stated that he could not hold out any hope of the proposals, as put forward, being accepted (*C. & D.*, March 18, p. 28r). . . .

A subcommittee has also been actively engaged considering the questions of child welfare and tuberculosis dispensing, etc., with a view to confining the work of these schemes to chemists and the consequent elimination of abuses and irregularities of administration. Your Committee is strongly of opinion that this effort to keep the dispensing of prescriptions and the supply of drugs, dressings, and special food products, ordered by local authorities, in the hands of the trade, should be followed up in the different boroughs

and county areas, as it is not only in the interests of chemists, but of the ratepayers generally, and would also benefit the recipients. Your Committee, therefore, urges members to get together in such areas and put up similar schemes. Members can rest assured of the help, advice, and full backing of the Committee, and this backing will be all the stronger when the scheme of incorporation of the Association, mentioned last year, is carried into effect.

The attention of the Executive has also been occupied with the matter of guilds and other such organisations demanding preferential terms, and it is gratifying to report that all members are now solidly united in the refusal of any such allowances. . . . The advisability of extending the period of apprenticeship to five years has been considered by the Committee. . . . The Executive Committee earnestly desires to impress upon all members that the continued success and usefulness of the Association depends very largely on the loyal observance of the rules and regulations relating to prices, coding, etc., and the co-operation of each member in these matters is earnestly requested and confidently anticipated.

THE PRESIDENT said the report dealt with a great deal of work, apart from the normal functioning of the Association in dealing with complaints, prices, etc.

MR. J. ADAMS proposed the adoption of the report, and Mr. J. McDOWELL seconded.

MR. W. BLAIR (secretary) said there were approximately 400 chemists practising in Northern Ireland. There were about 100 chemists who were outside the Association. A very large percentage of this number was made up of those who, for years past, had not been identified, if ever, with the Association, and who, notwithstanding every effort, still elected to remain non-members. They benefited by the activities of the Association in promoting the interests of the trade and, at the same time, still retained liberty of action and freedom from the observance of any rules or regulations. It occurred to him that if the problem could be approached from the apprentice standpoint they might make a beginning. An apprentice who received his training in the shop of a non-member was most likely to form the opinion that membership of the U.R.D.T.A. was not absolutely essential. He (the speaker) would suggest the possibility of members of the U.R.D.T.A. agreeing that, in the future, no assistants would be engaged by them who had served their apprenticeship to non-members. An appointed date could be fixed regarding the beginning of such apprenticeship, and therefore present apprentices would not be prejudicially affected. The result should be a restriction in the supply of apprentices to non-members in the immediate future. If the suggestion was acceptable, the best method of application could be carefully considered. Two important factors were essential for its success:—(1) Loyal observance of the principle by all members of the U.R.D.T.A., and (2) a reciprocal arrangement with other kindred trade associations.

MR. DALE asked whether they should find out if some of the non-members were members of the P.A.T.A.

THE SECRETARY said a reciprocal arrangement with other associations would cover that point.

MR. JOHNSTON asked if the non-members had been approached, and the PRESIDENT said they had been asked time after time to join.

MR. ANDREW thought the fact of their being non-members was due to their lack of loyalty to the Association as shown by price-cutting, etc.

MR. MCGREGOR supported the scheme of the secretary.

MR. CULBERT thought such a scheme would make outsiders pause. The scheme, he took it, would only refer to those who, after due warning, began their training.

MR. HEATRICK said all new men opening up should be asked to join.

THE SECRETARY said he had written to everyone except one or two lately licensed.

The meeting unanimously approved of the principle embodied in Mr. Blair's scheme.

MR. ADAMS, referring to the deputation to the Home Office regarding the sale of drugs by unqualified persons, said they should draw up modified proposals, as was hinted at in the report.

MR. MCGREGOR thought they would be getting modified proposals in about a year.

THE PRESIDENT paid a tribute to the work of Mr. Culbert in connection with the child welfare and tuberculosis dispensing.

MR. CULBERT said what they were aiming at was that these schemes should be confined to chemists. They took up the tuberculosis work on principle, but now that N.H.I. had come they were told by that Department that they were dispensing for the tuberculosis scheme of the Corporation at a cheaper rate than for N.H.I. They went into the matter with the chief tuberculosis officer of Belfast and compared the prices, and proposed to supply all the preparations without the patients having to go to the dispensaries. To do that the Association would have to purchase in bulk, and they might get some of the wholesale houses to act in that capacity or have goods distributed from three or four depôts to the chemists. If the scheme came into operation, prescriptions would be on the N.H.I. basis. They could not continue the tuberculosis work at present rates. Regarding child welfare and the school clinics, they had seen the chief medical officer of health in Belfast and given him particulars of the schemes working across the Channel.

Replying to MR. ANDREW, MR. CULBERT said the local formulas would probably be dropped.

Replying to a query by MR. MOORE, MR. CULBERT said that dressings were supplied free by the Corporation in the tuberculosis scheme. It was only the residue they had to deal with under that scheme, as N.H.I. covered many people formerly in the tuberculosis scheme.

MR. HUDSON said their legitimate business had been filched from them by the social services of the Corporation. In this case they had to come down a bit in order to get this particular business back. There was not much money in it, however.

The meeting by a show of hands expressed its agreement with MR. Culbert's scheme.

MR. SHINNER suggested that the period of apprenticeship should be extended to five years. He submitted that was a trade matter and not a question for the Council. In any ordinary trade the period was from five to seven years, but with them it was four years. At the present time students were doing double the curriculum they had to do when he went up for his Licence examination. That was not study, it was cramming. He believed a five years' term would cut down the number of potential chemists considerably, although not so much as they had liked.

MR. CULBERT supported the five years. It was unfair that after four years' cramming, and a few months' further cramming after that, a young fellow should be able to start for himself. It was not fair to the public as well as to the trade. With the help or collaboration of the Pharmaceutical Society they might be able to make the rule more effective or more easily enforced.

MR. MOORE also supported five years. Some chemists got not only five years but a fee also. In the indentures proposed by the Society the term was left open, also the question of fee.

MR. SHINNER said they could agree to five years without the sanction of the Society, which was hedged round by Acts of Parliament. It would be better, however, to have the Society with them.

MR. CULBERT said the Society had extensive powers by regulation, subject to Home Office approval.

After further discussion a resolution was passed expressing the opinion that five years should be the period and that the Committee take the matter up with the Pharmaceutical Society.

The report of the Executive Committee was then agreed to.

MR. W. J. RANKIN submitted the treasurer's report, which showed a balance to credit of £768, and on the motion of MR. HUDSON, seconded by MR. MCGREGOR, the report was adopted.

ELECTION OF PRESIDENT

THE PRESIDENT moved the election of Mr. S. J. Hudson as his successor. He said Mr. Hudson had served a long apprenticeship with them as secretary. He had an intimate knowledge of the working of the Association, and he was the right man in the right place.

MR. J. McDOWELL seconded the resolution, which was passed by acclamation.

MR. HUDSON, in returning thanks, paid a tribute to the work of Mr. Davis in the chair, and stated that Messrs. W. J. Hardy and James Dundee, who resigned last year, had agreed to rejoin the Association.

ELECTION OF OTHER OFFICERS

On the motion of MR. HUDSON, seconded by MR. DAVIS, Mr. W. Martin was appointed vice-president. Mr. W. J. Rankin was re-elected treasurer, and Mr. J. McGregor and Mr. E. A. Richey were appointed secretaries, the latter taking the place of Mr. W. E. Wilson. Messrs. James Macauley and T. Mitchell were chosen as hon. auditors. The Executive was elected as follows:—Messrs. John McDowell, C. B. Abernethy, James Macauley, J. C. Culbert, S. H. Forrest, John Adams, R. Linehan, W. J. Heatrick, A. Steede, W. Esler, W. Tate, P. R. W. Shinner, James Dundee, W. J. Hardy, S. Dale, J. H. Cronhelm, A. E. Davis and R. B. McEwen. Mr. James McDowell withdrew, stating he would attend as representative of the Belfast Area Committee (N.H.I.).

Messrs. H. F. Moore and Steede were elected to the Belfast Chamber of Trade. Mr. W. Tate was elected representative to the Ulster Tourist Development Association. A vote of thanks to Mr. Davis (the outgoing president) and the other officers concluded the proceedings.

National Pharmaceutical Union

Branch Meetings

Cardiff.—A meeting of the Cardiff Branch was held on March 7. Mr. J. Lee Jones in the chair. A resolution of thanks and appreciation to Mr. S. W. Hague for his services as local secretary of the P.A.T.A. for the past ten years was unanimously carried. Mr. S. B. Eason was appointed in succession to Mr. Hague. Arrangements were made for a canvass of pharmacists with the object of increasing the membership of the local Branch. The rearrangement of the local correspondents was completed, and in future the district will be divided into fourteen subdistricts with a correspondent attached to each area.

Manchester.—The annual meeting of the Manchester and District Branch was held on March 7. Mr. J. Lyle Davison (chairman) said his first duty was to express sympathy to the family of the late Sir William Veno. All the members stood in silence. The treasurer (Mr. G. H. Haines) presented his annual report, which showed an increase in reserve and membership. The report of the Executive was read by the secretary (Mr. T. Miller). A cordial vote of thanks to the chairman was proposed by Mr. J. Cleworth. Mr. E. H. Simmons moved a vote of thanks to the secretary, treasurer, vice-chairman and auditor. The treasurer and the auditor replied. The latter expressed his regret that the payment of the local subscription had not been possible in the headquarters arrangements. Many members protested strongly against paying a local subscription, their contention being that the Union should pay for the upkeep of branches. Messrs. Cleworth, Nidd, Simmons and Thorpe also expressed their views on this question. The following were elected members of the local Executive:—*Manchester*, Messrs. Cleworth, Dickson, Haines, Miller, Nidd, Stabler, Thorpe, and Wood. *Salford*, Messrs. Simmons, Fewster, Lewis, and Gough. *County*, Messrs. Edwards, Scholes, Peace, and Yates. The scrutineers (Mr. Cronin and Mr. Balf) were thanked for their services. Mr. W. I. Scholes (a member of the N.P.U. Executive) gave a short *résumé* of his experiences in business some forty years ago. An interesting discussion followed, and a resolution "That this meeting resolves to do all it can to discourage the sale of articles included in bonus or gift schemes" was carried. The following resolution was also passed:—"That this meeting regrets that the Conference resolutions stating that the subscription to the N.P.U. shall be inclusive of membership of the local branch was turned down." A vote of thanks was passed to the officers of the local pharmaceutical committees for their services during the past year. This was acknowledged by Messrs. Dickson and Nidd.

Association Meetings

Aberdeen.—The ninety-fifth annual meeting of the Aberdeen Pharmaceutical Association was held on March 14. Mr. M. K. Watt (president) in the chair. The annual report was taken as read. The Education Committee presented a report suggesting that instead of holding special examinations for the Association prizes for the evening class students of the School of Pharmacy, the results for the various examinations held in the School should be accepted and awards made upon them. After discussion the report was agreed to. The Business Interests Committee reported on an interview with the medical officer responsible for the distribution of foods at welfare centres; all members of the Association will now be able to supply these. Mr. Farquhar (treasurer) reported that the balance sheet showed a balance of £85, with an additional £9 to the credit of the entertainment fund. The School of Pharmacy fund was in a very strong position. An interesting statement on insurance dispensing and the work of the Pharmaceutical Committee was given by Mr. W. F. Hay. Office-bearers for the ensuing year were elected as follows:—*President*, Mr. M. K. Watt; *Vice-President*, Mr. J. G. Mutch; *Treasurer*, Mr. J. Farquhar; *Secretary*, Mr. H. M. Dugan; *Auditor*, Mr. A. P. Wallace; *Members of the Executive Committee*, Mr. Charles Simpson and Mr. W. F. Hay.

Belfast.—The monthly meeting of the Executive Committee of the Ulster Retail Drug Trade Association was held on March 7. The president (Mr. A. E. A. Davis) was in the chair, and there was a full attendance. The Committee's report for the past year was adopted. Mr. C. Abernethy, Mr. J. McGregor and Mr. E. A. Richey, the representatives of the U.R.D.T.A. on the joint deputation with the Pharmaceutical Society of Northern Ireland to the Ministry of Home Affairs, presented a report of the proceedings. Mr. J. C. Culbert, on behalf of the subcommittee dealing with the child welfare and tuberculosis dispensing schemes, reported on the progress of negotiations. Both reports were fully discussed, and the valuable services rendered were highly appreciated. Final arrangements regarding the agenda for the annual general meeting were made, and a number of price alterations approved and adopted. During the business, the president entertained the members to tea, and at the conclusion of the meeting, on the motion of Mr. McGregor, a vote of thanks for his hospitality was passed.

Belfast.—A meeting of the committee of the Chemists' and Druggists' Society was held at 11 Waring Street, Belfast, on March 14. Mr. Fred Storey (president) in the chair. The president said they all regretted the death of Mr. J. Long, who was a very old member of the Society. He also referred to the loss Mr. S. Gibson had sustained by the death of his mother, and moved a vote of sympathy with the relatives of Mr. Long and to Mr. Gibson. This was seconded by Mr. Martin and passed. On the motion of Mr. Richey, seconded by Mr. Macauley, it was resolved that a letter be sent to Mr. Gibson, regretting his illness and wishing him a speedy recovery. Mr. Young's second lecture on the B.P. was fixed for April 27 at 8.30, at 11 Waring Street. Mr. Storey referred to the joint deputation from the Pharmaceutical Society and the U.R.D.T.A. to the Ministry of Home Affairs regarding the sale of drugs to unregistered persons. He gave a detailed account of what took place, and warned members to watch the present Pharmacy and Poisons Bill before the Imperial Parliament. Mr. Richey, another member of the deputation, also spoke regarding it. The annual meeting was fixed for March 29.

Colwyn Bay.—A well attended meeting of chemists and photographic dealers was held on March 15 at Colwyn Bay. Mr. Bell, Llandudno, occupied the chair. The meeting was addressed by Mr. Harold Lomax, Liverpool; Mr. C. T. Thonger, Birmingham (treasurer of the Photographic Dealers' Association), and Mr. A.

McIntosh, London. It was decided to form a branch of the Association to be known as the Colwyn Bay, Llandudno and District Branch, meetings to be held alternately at Colwyn Bay and Llandudno. The following officers were appointed, together with a committee of twelve members from the surrounding districts:—*Chairman*, Mr. Bell, sen., Llandudno; *Vice-Chairman*, Mr. E. A. Neill, Colwyn Bay; *Treasurer*, Mr. G. H. Hughes, Conway; *Secretary*, Mr. J. Gwyman Edwards, Penmaenmawr.

Edinburgh.—The sixth meeting of the present session of the Edinburgh Chemists', Assistants' and Apprentices' Association was held on March 10. Mr. J. J. Blackie (president) in the chair. The first item was a paper by Mr. W. Latimer, entitled *Volatile Oils*. Mr. Latimer said that these oils are usually liquid substances, although occasionally solids are met with. There are thirty official representatives, and these may be divided into three distinct groups—volatile oils, fixed oils and empyreumatic oils. Ten fixed oils are official. The oils of this class are composed almost entirely of esters. Eighteen volatile oils are official. By a reduction in temperature many volatile oils can be divided into two portions—a liquid oleoptene and a solid stearoptene, camphor, for example, being the stearoptene and essential oil of camphor the oleoptene. Another interesting property of many volatile oils is their power of rotating the plane of polarised light. This often serves to detect adulterants. The B.P. mentions limits of optical rotation for nearly all the oils. Five volatile oils consist of alcohols. These are: Peppermint, rosemary, Indian sandalwood, Australian sandalwood, oil of coriander. Five oils containing esters are official. These are oil of peppermint, oil of rosemary, two sandalwood oils, oil of Siberian fir. The two oils containing aldehydes are oil of lemon and oil of cinnamon. Another two oils contain ketones, oil of dill and oil of caraway. Oil of clove is the only representative of oils containing phenols. Four oils are official which consist of substances neither alcohols nor phenols but showing properties of each. These are cajuput, eucalyptus, nutmeg, chenopodium. Oil of nutmeg consists of a mixture of alcoholic and phenolic substances. Terpenes are also present. Oil of anise is the only official example of a volatile oil containing an ether. Oil of turpentine consists of a mixture of terpenes. Mr. W. A. Beattie contributed a series of practical notes entitled *Pharmaceutical Fragments*, including a note on thyroideum, B.P. The official designation has settled one very important point, but another has now arisen. Inquiries have been made as to how the B.P. thyroid compares with the U.S.P. Iodine is present in three forms—(1) inorganic iodine, the portion which is soluble in water; (2) the acid-soluble di-iodotyrosine, which is physiologically inert; (3) the physiologically active and insoluble thyroxine-iodine. Thyroideum, B.P., 1932, is standardised to contain 0.1 per cent. of this physiologically active thyroxine-iodine. The U.S.P. thyroid is standardised to contain 0.2 per cent. of iodine in organic combination, so that actually no definite figure of comparison can be given, owing to the great variation in the percentages of thyroxine-iodine present in the total iodine content. Harington and Randall found that the amount of acid-insoluble of thyroxine-iodine present varied from 0.03 to 0.19 per cent. and from 28 per cent. to 60.5 per cent. of the total organic iodine. From these figures the thyroxine-iodine content of the U.S.P. thyroid will vary from 0.055 per cent. to 0.121 per cent. Regarding digitalis pulverata, B.P., the B.P. specifies No. 20 powder; this is much too coarse for pill- or tablet-making, and a No. 40 powder is necessary. Mr. Beattie showed a simple apparatus which could be used for dry sterilisation of glass vessels and containers by heating to 150° C. for an hour or for sterilisation of oily substances. After a discussion, cordial votes of thanks were accorded to Messrs. Latimer and Beattie.

London (N.).—The monthly meeting of the North London Pharmaceutical Association was held on March 14, the president (Mr. J. Hearle) in the chair. Most of the business arose out of the correspondence, including the activities of local clinics, shop hours, distribution of chemists' lines through employees' buying clubs, buying goods direct from the wholesaler by private persons, removal from the Dentists Register, notification of B.P. changes to medical men, and the Pharmacy and Poisons Bill in the House of Lords. The notes on sales analysis of drug stores by Mr. Skinner was unfortunately crowded out by the long and interesting discussions.

London (S.-W.).—A joint meeting of the South-West London Chemists' Association and Branch of the Pharmaceutical Society with the local branch of the Photographic Dealers' Association was held on March 13. Mr. W. E. Wragg, chairman of the S.-W. Branch of the P.D.A. presided. Mr. J. T. Hope-Evans gave a talk upon the work done in the interests of photographic dealers, and Mr. H. Flower, A.R.P.S., of Ilford, Ltd., gave a lantern lecture upon *Infra Red Photography and the use of Hypersensitive Plates*. Some slides were shown illustrating views taken at distances from 50 to 300 miles. It was obvious that infra-red work was of no use for portraiture from the general public's point of view, but it would prove invaluable to science, opening up new avenues of research. Hypersensitive plates, however, provide the public with good reason for making a camera an all-the-year-round instrument, slides being shown illustrating scenes taken in the theatre, the boxing ring, night scenes, or during the day, all with very reasonable exposure times.

Manchester.—The annual meeting of the Manchester and District Pharmaceutical Golf Society was held on March 15. The principal business was the election

of officers and the tentative arrangement of fixtures for 1933. The first match of the season is fixed for March 29, at Reddish Vale, when the president's prize will be played for. The *President* (Mr. J. H. Franklin) was re-elected. Mr. Woodhead was elected *Captain*, and Mr. P. W. Stuart was re-elected *Secretary*. A handicapping committee was also appointed, and several donors of prizes were elected honorary members.

Manchester.—At a meeting of the Junior Branch of the Manchester Pharmaceutical Association, held on March 15 at the Victoria Hotel, a lantern lecture on *Belgium* was given by Mr. F. Grant of the L.M.S. Travel Bureau. This was a lecture of a series that has proved so popular that ninety members and friends attended this lecture, which, owing to the versatility of the lecturer, proved thoroughly enjoyable. Mr. J. H. Franklin proposed a vote of thanks. Mr. R. B. Maskell manipulated the lantern with his usual skill.

West Kent.—There was a large attendance of members of the West Kent Chemists' Association at a meeting held on March 14, when Mr. G. R. Boyes (Parke, Davis & Co.) gave a lecture on biological products. The lecture was much appreciated, Mr. Allan Bone (chairman) and various members taking part in the discussion which followed.

Women Pharmacists.—On March 17 a meeting of the National Association of Women Pharmacists was held at 17 Bloomsbury Square, London, W.C.1. Sir Wilfred Sugden, M.P., barrister-at-law, gave an address on *Parliamentary Experiences*. He outlined the main features of a parliamentary candidate's campaign, and gave an interesting and amusing account of the passing of a Bill through Parliament. A vote of thanks was proposed by Miss Blundell and seconded by Miss M. F. Smith.



THE ABOVE ILLUSTRATION SHOWS THE PRIZE-WINNING WINDOW ARRANGED IN CONNECTION WITH NATIONAL PHARMACY WEEK IN THE UNITED STATES OF AMERICA.

Festivities

Manchester Junior Dance

THE Junior Branch of the Manchester Pharmaceutical Association held a dance at the Piccadilly Dance Salon, on March 1. The company numbered about 100, and a most enjoyable evening was spent. Dancing was continued until 1 a.m., Messrs. Maskell and Steinman proving efficient M.C.s.

Blackpool Annual Function

MR. P. T. ORMEROD (president of the Blackpool Branch of the Pharmaceutical Society) and Mrs. Ormerod received a company of nearly 100 at the annual social function on February 22. Following whist, the party had dinner and completed the evening with dancing. Mr. J. P. Sidebottom was M.C. for whist, and Messrs. H. H. Moorhouse and S. C. Cooke M.C.s for dancing.

Hull Students' Dance

MEMBERS of the Hull Pharmaceutical Students' Association held their annual dance on February 23. The company, to the number of about 300, included members of the senior Association. The presidents of both Associations (Mr. S. T. Boyce and Mr. B. Foster) were present. The M.C.s were Messrs. Wood and Naylor. The function was voted a huge success.

Birmingham Event

A WHIST DRIVE and dance was held under the auspices of the Birmingham Pharmaceutical Association on March 15. Mr. F. J. Green acted as M.C. The prize winners were as follows:—*Whist*—Messrs. Keen and Mann, Mrs. Mann, Miss Fletcher. *Dancing*—Mrs. Edwards, Misses Brookes, Coates, and Perks, Messrs. Keeling and Smith. Dancing continued until 1 a.m.

Staff Function

THE CROOKES LABORATORIES (British Colloids, Ltd.) held a social and dance at the Lysbeth Hall, Soho Square, London, W.1, on March 6. The company included the chairman and Mrs. Kelly, the chief chemist (Mr. J. F. Ward), the general manager (Mr. C. C. Looker), the works manager (Mr. F. J. Thompson), the administrative and laboratory staff and some 200 employees and their friends, who enjoyed a thoroughly successful evening.

North-East Lancashire Function

SUCCESS attended the annual whist drive and dance organised by the North-East Lancashire Branch of the Pharmaceutical Society on March 2. There was an attendance of about 140, and the M.C.s for dancing were Messrs. R. Pickup (vice-president), J. Gillett, C. W. Hutchinson, C. Reidy, E. Cohen and T. Bailey; Mr. C. Taylor (president) was M.C. for the whist. The prizes were distributed by Mr. C. Taylor, the winners being as follows:—*Ladies*: (1) Mrs. Pickup; (2) Mrs. Haslam; (missing number) Mrs. B. H. Clarke. *Gentlemen*: (1) Mr. Melia; (2) Mr. Dewhurst.

Great Yarmouth Dinner

THE annual dinner of the Great Yarmouth Pharmaceutical Association was held on March 9. The president (Mr. P. R. Hill) presided over a good company. After an excellent dinner the president proposed "The Visitors," which was suitably responded to Mr. Widdowson (Wright, Layman & Umney, Ltd.) and Mr. Attwood (C. R. Harker, Stagg & Morgan, Ltd.). A whist drive was held later, the prize winners being as follows:—*Ladies*, (1) Mrs. T. J. Woodcock; (booby) Mrs. F. E. Whitfield. *Gentlemen*, (1) Mr. P. Leonard; (booby) Mr. S. T. Woodcock. Mr. F. E. Whitfield and Mr. R. C. Hannant were responsible for the arrangements.

Thames Valley Dinner and Dance

A LARGE company attended at the Restaurant Frascati, London, W.1, on March 8, to support the president (Mr. W. S. Howells) on the occasion of the annual dinner and dance of the Thames Valley District Pharmacists' Association. The guests were received by Mr. and Mrs. Howells, and included Mr. W. J. Beardsley (a member of the Pharmaceutical Society's Council) and Mrs. Beardsley, Mr. and Mrs. Alfred Higgs, Mr. and Mrs. Goode, Mr. and Mrs. Slade, Mr. and Mrs. Durbin, Messrs. J. Sanger, Winchester, Malcolm, Britton, P. S. Windwood and J. P. Gilmour. The spur tables were in charge of Messrs. R. Lindsay, W. Griffiths, Norman Dewey, C. B. Harrison, A. F. Clarke, W. Tims and A. B. Thomas. Speeches were considerably curtailed to allow more time for dancing. After the loyal toast, that of "The Thames Valley Pharmacists' Association" was proposed by Mr. T. M. Lloyd, who coupled with it the name of the chairman. The toast was received with musical honours. Mr. Howells, in reply, referred to the many questions affecting the craft. He hoped Mr. Beardsley would take back to the Council a message that a toast to the Society was omitted only on account of the shortage of time; they were a loyal Association and respected the Council. He was of the opinion that the time had come for territorial representation on the Council of the Society. A great menace to the craft to-day was the evil of price cutting. He had now occupied the chair for two years in succession, and he would like to thank the committee for all they had done to make his period of office a success. The room was then cleared for dancing.

London Chemists' Golfing Society Dinner

THE annual dinner and dance of the London Chemists' Golfing Society was held at the Trocadero Restaurant, London, W.1, on March 16. The chair was taken by the president (Mr. M. W. Carmichael), who was accompanied by Mrs. Carmichael; the company included Mr. F. Gladstone Hines (president of the Pharmaceutical Society). This jolliest of annual functions attracted over 200 diners, all of whom appeared to thoroughly enjoy themselves. After the loyal toast, that of "The



AT THE LONDON GOLFERS' DINNER

London Chemists' Golfing Society" was proposed by Mr. F. Gladstone Hines. Mr. Hines was in humorous mood. His golf shots, he said, had a velocity and directness which were "unique." He had great pleasure in proposing the toast with which he coupled the name of the vice-captain (Mr. J. Deas). Mr. Deas, in reply, extended a hearty welcome to members of wholesale houses who had presented prizes to be competed for annually. He thanked Mr. Hines for his kind words. "The Ladies and Visitors" was proposed by the ever genial Mr. Dan J. Parry, who extended a special welcome

to Mr. Hines, Mr. Hewlett, Mr. Lorman, and Mr. Johnston. He welcomed all the guests and especially the ladies. He coupled with the toast the name of Miss Quibell. In reply Miss Quibell thanked the company for the charming way with which they had received the toast. They were all enjoying themselves. They were extremely proud of their president, whom she described as the London chemists' "grand old man" of golf. At this stage the prizes were distributed by Mrs. Carmichael to the following:—Sanger Cup, L. R. Hayne; Vinolia prize, Capt. H. W. Bartlett, M.C.; D. & W. Gibbs prize, E. G. Nice; Thomson cup, J. Abernethy; Kerfoot trophy, R. Collings; Rowland Stag prize, E. G. Nice; Hepburn shield, Dr. J. W. Skelley; Burgoyne cup, M. W. Carmichael; British & Colonial cup, W. Main; Mentholatum prize, W. Gray; Lechner cup, W. W. Deeth; Arthur H. Cox prize, W. Hargreaves; Yardley cup, J. W. Barton; Captain's prize, G. F. Deeth; President's prize, W. M. Ballantyne; Morny's prize, P. O. Royle; Society's prize, H. Davis; Bogey foursomes, A. W. and R. A. Daniel. "The Chairman" was then proposed by Captain H. W. Bartlett, M.C., who said Mr. Carmichael had been a member of the Society almost since its inception. They were charmed to find that Mrs. Carmichael was able to accompany him. Although Mr. Carmichael admitted reaching the veteran stage he would take on any man present and beat him on his handicap. The chairman suitably replied. The room was then cleared for dancing, which continued until 1 a.m.

Birkenhead and Wirral Supper

A DELIGHTFUL EVENING was spent by the Birkenhead and Wirral Pharmacists' Association at the Woodside Hotel, Birkenhead, on March 15, when they held their annual supper. Mr. A. Williamson (president of the Association) was in the chair, and the principal guest was Mr. H. Humphreys Jones (principal of the Liverpool School of Pharmacy). Prior to the commencement of the evening's entertainment, the chairman made sympathetic reference to the illness of Mr. A. Elder (a vice-president of the Association), to whom the secretary was instructed to send a special message of sympathy and good wishes. At the conclusion of the supper Mr. H. Humphreys Jones delivered an address on "Retrospection and Progress." Mr. Humphreys Jones said he joined in wishing Mr. Elder a speedy recovery. They had with them that night Mr. Johnston, of the Chemists' Defence Association. He did not think there was a man connected with pharmacy who had done more for pharmacists than Mr. Johnston. Mr. Humphreys Jones recalled interesting experiences of his early days as an apprentice. Obviously, he said, he could not remember very much of the general "get-up" of the pharmacy, but to him it was full of mystery, and he felt sure there were practically no proprietaries on view. Everything would be prepared on the spot, and apparently there would be nothing between the mysterious drugs—which one regarded with awe—and oneself besides the chemist. He was verily the oracle between the drugs and the patient. His point, he said, was that distinctive individuality had to a large extent disappeared from pharmacy—much to the detriment of the craft. Mixtures, pills, embrocations, etc., were now packed in an up-to-date manner, but they did not bear the image of the pharmacist on them. There was nothing distinctive about them. The pharmacist gained a good deal when the authorities allowed "known, admitted and approved remedies" to be sold without stamp duty, but he was afraid this beneficent and just right had not been an unmixed blessing. Other factors that tended to destroy individuality were the modernising of shop fronts, the disappearance of the carboy and specie jar and the relegation of the old shop round to the back room. He was fully aware, however, that modern conditions made it difficult, and perhaps impossible, to carry on in the old-fashioned way. He had been asked, he said, to appeal on behalf of the Society's Benevolent Fund, and he was sure that it was hardly necessary to make an appeal on behalf of such a worthy cause. All pharmacists knew the value of the Fund. The meeting passed a special vote of thanks to Mrs. Williamson for her

efforts in raising the sum of £6 2s. 6d. at a whist drive in aid of the Benevolent Fund. Mr. C. H. Wright proposed a vote of thanks to Mr. Humphreys Jones for his admirable address. Mr. Johnston, in supporting the vote of thanks, said he had listened with very great pleasure to Mr. Humphreys Jones. He did not say that he could agree with him on all points. He thanked Mr. Humphreys Jones for his kind reference to his work. Altogether a sum of £23 16s. 6d. was raised for the Fund as follows:—Donation from Association, £7 10s.; donation from Social Committee, £3 3s.; collecting boxes, £3; Mrs. Williamson's whist drive, £6 2s. 6d.; Mr. Moore, 10s.; collection at supper, £3 11s.

Annual Dinner at Liverpool

THERE was a large gathering of chemists and their friends at the Adelphi Hotel, Liverpool, on March 8, when the Liverpool Chemists' Association and the Liverpool and District Branch of the Pharmaceutical Society held their eighty-third annual dinner. Prior to the dinner a reception was held, when the diners were greeted by the president of the Association (Mr. H. Humphreys Jones) and Mrs. Humphreys Jones, the Lord Mayor and Lady Mayoress of Liverpool, and the president of the Pharmaceutical Society (Mr. F. Gladstone Hines). Others present were Professor E. C. C. Baly, C.B.E., F.R.S. (Professor of Inorganic Chemistry at Liverpool University); Professor John Hay, D.L., M.D., F.R.C.P. (Professor of Medicine at Liverpool University); Mr. F. Robertson Dodd, F.I.C. (chairman of the Liverpool and North-Western Section of the Institute of Chemistry); Mr. E. Gabriel Jones, M.Sc., F.I.C. (chairman, Liverpool section, Society of Chemical Industry); Mr. L. Moreton Parry (past-president of the Pharmaceutical Society); Mr. W. H. Clubb (past-president of the Liverpool Chemists' Association); and Mr. G. L. Clubb (vice-president of the Liverpool Chemists' Association). After the loyal toast had been proposed by the chairman, and enthusiastically applauded, he proposed the toast of "The Pharmaceutical Society." It was his privilege, he said, to propose this toast for the third time in succession. The Society was deeply rooted in the past and now looked into the future. The parent body must be respected and yet made progressive. It was not the present only they must look to, but the future also. The Society had been very keen in its protection of the interests of its members. The Society had been to the forefront in the matter of education since it first came into existence. Quite recently the Society had taken an important step in providing an examination in biochemical analysis. It had also done pioneer work in collecting data for biological assays, while it had also been to the forefront in the matter of vitamin research, thanks to the valuable work of Dr. Burn and his collaborators. He was perfectly satisfied that the Society was doing very wisely in proceeding with this work. In responding, Mr. Hines said he would first of all like to congratulate the chairman on his admirable address and for the kind remarks he had made about the Society. Mr. Humphreys Jones was president of an Association as old as the Society itself. They all knew his worth as a teacher of pharmacy, not only for the excellent ground-work which he gave his students, but also for the excellent influence he had in moulding their characters. Then too, in his capacity as president, it would ill become him not, on an occasion like that, to acknowledge the services of his old colleague, Mr. Moreton Parry, to the Society and to the Liverpool Chemists' Association. They had worked together for many years, and he was very glad to see that he was once more fully restored to health. The Pharmacy and Poisons Bill, said the president, was a very different Bill from its predecessor, re-drafted, and a much more workmanlike measure. There were some very important changes which he believed were all to the good, and that was something that they might congratulate themselves upon. The new diploma in biochemical analysis was one step in their own internal sphere to keep the pharmacist in line with modern medical equipment. The scientist was essentially a specialist, and the pharmacist—to serve his day and generation effectively—must aim at specialisation. Mr. W. H. Clubb proposed the toast of "Our City," to

which the Lord Mayor of Liverpool responded. The toast of the "Liverpool Chemists' Association," proposed by Professor E. C. C. Baly, was replied to by Mr. G. L. Clubb. "Our Guests" was proposed by Mr. L. Moreton Parry, and replied to by Professor John Hay and Mr. F. Robertson Dodd. Prior to the close, the health of Mr. Humphreys Jones was enthusiastically acclaimed at the instance of Mr. E. Gabriel Jones. Musical items were rendered during the evening by Madame Ffreda Holland, harp; Miss Lewis, songs; Mr. Meirion Morris, songs; and Mrs. Rees Davies, L.R.A.M., at the piano.

Coming-of-Age Dinner

ON March 9 at the Hotel Metropole, London, W.C.2, over 200 guests were present at the dinner and dance held to celebrate the twenty-first birthday of the South-Eastern Association. The president (Mr. J. Milner) occupied the chair, and the guests included Sir George Hume, M.P., Mr. F. Gladstone Hines (president of the Pharmaceutical Society), Mr. Herbert Skinner (a member of the Society's Council), Mr. W. Marshall Freeman (Recorder of Stamford), Mr. Henry Lesser and Mrs. Lesser, Mr. C. A. Mallinson (secretary of the N.P.U.), Mr. H. E. Chapman (secretary of the P.A.T.A. and president of Croydon and District Pharmacists' Association) and Mrs. Chapman, Mr. E. J. Andrews (secretary of the P.D.A.), Mr. G. A. Tocher and Mrs. Tocher, Mr. W. P. Want, Mr. P. S. Windwood (Western Pharmacists' Association) and Mrs. Windwood, Mr. J. E. Monaghan (South-West London Chemists' Association) and Mr. W. E. D. Shirtliff (London County Association). The spur tables were in charge of the past-presidents of the Associations: Capt. J. J. G. Hay, M.C., and Messrs. Foster, Happold, Lockyer, Price, Ralph, Sayers and Wing. After the loyal toast, the president piloted the proceedings with businesslike alacrity, the proposers and responders co-operating with a commendable brevity. In proposing the toast of "The Pharmaceutical Society" Mr. W. Charles Sayers recalled that he was one of the pharmacists who met twenty-one years ago to found the Association. He referred to the help and encouragement frequently given by the Pharmaceutical Society and pleaded for generous support for the Benevolent Fund. In his reply, the president of the Society said that it was his pleasure to join in the jolly birthday celebration of

the "South-Eastern Youngster" and to wish it many years of vigorous life. Mr. H. E. Chapman described his toast, that of "The South-Eastern Association," as the most important of the evening. He recalled many years of happy association with the chairman (Mr. Milner) and past-presidents. From the acorn of twenty-one years ago had grown the huge South-Eastern oak. Mr. Chapman paid a tribute to the secretary (Mr. E. Oswald Wells) for the success of the present celebration and for his untiring efforts for the welfare of the Association. He coupled with the toast the name of Mr. Milner who, he said, was a great power in all branches of pharmaceutical activity. Replying, Mr. Milner surprised the company by reading an account, published eighteen years ago in *THE CHEMIST AND DRUGGIST*, of a "South-Eastern Association" born in 1844. This consisted of a declaration signed by twenty-one chemists and druggists of Greenwich, Deptford, Blackheath and district who agreed to "shut their shops at 9 o'clock for 9.30 p.m. and on Saturdays at 10 o'clock for 11 p.m." The speaker said that hours were still too long, but he rejoiced to think that they were an improvement on those days. He referred with gratitude to the original founders, to each of the succeeding presidents, and to the energy and worth of Mr. E. O. Wells. The future, he hoped, would afford even more opportunities for unity and progress. Mr. E. G. Price, who proposed "The Drug Trade Organisations," referred suitably to each of those represented, and coupled with the toast the name of Mr. G. A. Mallinson (secretary of the N.P.U.). Mr. Mallinson, in reply, said there was a great value in a sound local association and that in particular he could confirm a previous statement that the "South-Eastern" could be a "stinger." He appreciated the reference to the work of the N.P.U. The toast of "The Visitors" was proposed by Mr. A. J. Wing in a neat and comprehensive speech. He coupled with the toast the name of the chief guest, Sir George Hume, J.P., M.P. Before replying, Sir George Hume presented to Mr. Milner, on behalf of the Association, a birthday present which took the form of a gold-plated Waterman fountain pen, and a copy of the South-Eastern Year-Book autographed with the pen by everyone present. After expressing delight at the success of the evening, Sir George invited the chairman to bring a party of chemists to the Houses of Parliament and kindly offered to conduct the party himself. Mr. Milner gladly accepted the offer. Dancing continued until midnight.



Photo]

THE COMPANY AT THE DINNER OF THE SOUTH-EASTERN ASSOCIATIONS.

[Swaine

The Pharmacy and Poisons Bill

By North Briton

WILL the Bill go through? Considering that our legislators are so busy thinking about important schemes, such as the reduction of unemployment, slum clearance, housing, disarmament, League of Nations, India and many other pressing matters, is it likely that they will give any attention to a Bill that deals with such trifles as pharmacy and the sale of poisons? It is just possible, therefore, that the Bill may be passed, unless there is clear evidence that its passage in its present form would be the betrayal of thousands of educated men.

Ought the Bill to go through? Assuredly not, and if the 20,000 qualified pharmacists whose interests are so vitally affected rise and protest against a flagrant injustice it will not go through. There is no probability that any unofficial member of Parliament will, of his own volition, wade through a mass of printed matter, probably 10,000 words, on a subject he knows and cares nothing about; but pharmaceutical opinion ought to be strong enough to make its influence felt on all members, and once their eyes are opened to the manifest injustices contemplated by the Bill, we may venture the prediction that much that is proposed will either disappear altogether or be very severely modified.

What does the Bill propose to do? In the first place it abolishes the democratic constitution of the Pharmaceutical Society. Hitherto the Society has been composed of voluntary members, who have joined of their own free will, paying such fees as from time to time have been levied. No pharmacist was compelled to join, and beyond the fees paid for examination expenses, no further liability was incurred. This voluntary system is to be scrapped; clause 1 (1) proposes that the provisions of the Pharmacy Acts and of the Charter dealing with the "election" of members, "shall cease to have effect," the section providing that "Every person registered as a pharmacist shall, by virtue of being so registered, be a member" of the Society. This undoubtedly means that the 20,000 (approximately) pharmacists at present on the Register become automatically members of the Society. An annual "retention fee" is to be paid by every member, and if any member refuses or neglects to pay, the Council "may remove his name from the Register." "A person shall, on ceasing to be registered as a pharmacist, cease to be a member of the Society"; conversely, does a person ceasing to be a member of the Society also lose his qualification as a pharmacist? Can any Act of Parliament rob a man of a legally acquired qualification, because he has not paid a fee which may be levied years after he qualified?

Membership of the Council

Clause 4 (1) provides that the Privy Council "may nominate three persons to be members of the Council," in addition to those appointed under the Charter, and (4 (2)) "a person may be nominated under this section as a member of the Council whether he is or is not a member of the Society." This is a very vital and fatal innovation. By clause 5, by-laws do not require to be confirmed by a special meeting of the Society; also very vital. Clause 6 provides that for the purposes of this Act a Statutory Committee shall be appointed, consisting of six members, of whom five shall be appointed by the Council, and one "having practical legal experience" by the Privy Council, the last-named to be chairman of the Committee, "and a person may be appointed a member of the committee whether he is or is not a member of the Society or of the Council of the Society." Under this section it appears that the Statutory Committee might consist of six members, not one of whom was a member of the Society. One can hardly imagine a Society or its Council committing *felo de se* in this way, but the fact that the present Council appears to have "agreed" to this extraordinary clause does not inspire us with much hope that they will have sufficient backbone to resist other pressure on any subject of

practical importance when it comes from a Government department. The expenses of the Statutory Committee, including fees payable to any of the members, "shall be defrayed by the Society." Naturally! We would expect that! Clause 12 (1) Every authorised seller of poisons (registered pharmacist or body corporate) shall register all the sets of premises where his (drug) business is carried on, and (3) there shall be payable a fee not exceeding three pounds per annum, but (4) different fees may be prescribed in relation to different circumstances.

Retention Fees

Clause 13 (1, 2) lays down that every authorised seller of poisons shall in January of each year send a list of his premises to the registrar, and failing this he shall be liable on conviction to a fine not exceeding £5 for each offence and a further fine not exceeding £1 for every day, subsequent to his conviction, during which the default continues. In the next clause we are told that any person aggrieved by a direction of the Statutory Committee may appeal to the High Court, the decision of the High Court, with its order as to the costs of the appeal, shall be final. Surely this is a superfluous warning! Is it likely that any pharmacist would ever dream of going to the expense of contesting in the High Court a decision by a Government department—for actually the representatives of the Privy Council may be accepted as the department? A careful scrutiny of these clauses, therefore, leads us to the view that if the Bill becomes law, the Pharmaceutical Society will cease to be of any practical significance as a governing body in pharmacy, or for any other purpose saving only that of education and the conduct of the examinations, neither of which so far have been interfered with.

There will still be the farce of an annual election of councillors by the members of the Society, but is it at all likely that any pharmacist with a spark of independence will allow himself to be nominated to a position in which he will be powerless to give effect to his opinions? If this Bill is passed as it stands, it will fetter the pharmacists of this country with many useless regulations and untold expense. What is that expense likely to be? Assume that 50 per cent. of 20,000 pharmacists pay the full fee of £2, 25 per cent. a modified fee of £1, and the remainder a nominal fee of 10s. each; the Society will then get an income from retention fees of £27,500. Then we may assume that 12,000 premises will be registered, and these may safely be reckoned on paying an average of £2 each, making a further £24,000 and a total of at least £51,500 from fees alone. This is an enormous sum to take out of pharmacy; at first sight it looks as if it could not be done. Certainly it cannot be done without extortion from many hundreds of men who will find it extremely difficult to meet the new imposition. The old cry of monopoly does not cut much ice to-day. With seedsmen, ironmongers and oilshops selling an extended assortment of Part II poisons, with grocers and general stores dabbling in proprietary medicines at cut prices, and with bodies corporate running huge establishments with large staffs (including one qualified pharmacist to grace a drug department possibly run at a loss), there is not much chance of a monopoly in these days for the pharmacist. The only monopolies now are the learned professions—and these do not run shops for their living.

Poisons

Part of the new Bill is devoted to poisons, and here again the Council has "agreed" to an extraordinary set of provisions, which will be resented by thousands of pharmacists. This part of the Act will be administered by a "Poisons Board" containing sixteen members, and of these not more than four are likely to be pharmacists in retail trade. There is a large amount of detail specified, not only in connection with the sale of poisons by retail but also in the dispensing of medicine containing even a minimal quantity of a Part I poison. No doubt similar regulations are already carried out in

high-class dispensing businesses where there are several qualified pharmacists employed, but they are not practicable in a one-man shop, as so many pharmacies are.

Poisons will, as heretofore, be of two classes, the virulent poisons in Part I of the Schedule, and those in Part II which will consist of "articles which are in common use, or likely to come into common use, for purposes other than the treatment of human ailments, and which it is reasonably necessary to include in the said Part II if the public are to have adequate facilities for obtaining them." Obviously this opens a very wide door, and the distinguished men from the Royal Colleges and elsewhere on the Poisons Board are hardly likely to have much personal acquaintance with the poisonous articles "in common use." What an opportunity this gives for lobbying at the expense of the pharmacist! The carrying out of all the Regulations will involve inspection by a small army of men appointed for the purpose. Two classes of inspectors are provided for. Those who inspect the premises, etc., of authorised sellers of poisons (Part I) must be qualified pharmacists. This is all to the good, as it will enable a considerable number of appointments to be made and thus relieve the unemployment situation, but the average pharmacist will be apt to resent the visits of an official pill-roller. The other class, who will inspect the premises of those in the local authorities' lists, will no doubt mainly consist as hitherto of policemen or local municipal employees. The Bill provides that all the expense of inspection will come out of the funds of the Society, or, as we have seen, out of the pockets of the hard-hit pharmacist.

Not content with all this wreckage wrought on pharmacy, the Bill contains still another sting, this time in its tail. The first Schedule attached to the Bill provides that the Statutory Committee, which, as has been shown, might conceivably contain not one pharmacist, may make regulations as to procedure, etc., and these regulations, when confirmed by the Privy Council, are to be laid before the Houses of Parliament for thirty days. If no objection is raised, they become law. This has recently become a short and easy way for obtaining additions, alterations and amendments to Acts of Parliament, and its application in the present Bill ought to be resisted. More than one legal authority has stated that legislation by regulation is an insidious and reprehensible method of getting alterations made in law without their being properly discussed. Surely this is the time for every pharmacist to buckle on his armour; the sternest fight of his life must now be faced.

By John Humphrey, Ph.C.

REINTRODUCTION of the Pharmacy and Poisons Bill by the Government promises to make the present session of Parliament one of the most momentous in the annals of British pharmacy. As introduced by Lord Lucan, the Bill follows generally the lines of its 1930 predecessor; but the text of the measure has been rearranged in certain respects and modified in places, while there are important additions which make for improvement from the pharmaceutical point of view. These additions include a clause to make it unlawful for a poison to be sold through the medium of an automatic machine, and words designed to overcome the defect in the law revealed by the decision in the case of the Pharmaceutical Society v. Fuller. Thus, it is now stipulated that a business which comprises the retail sale of drugs must, if poisons are to be sold, be under the personal control of a pharmacist. It is further provided that, in determining the distribution of poisons between Part I and Part II of the proposed Poisons List, regard shall be had to the desirability of restricting Part II to articles which are in common use, or likely to come into common use, for purposes other than the treatment of human ailments. This, of course, represents the amendment accepted by the Government, which led to acceptance of the former Bill as an agreed measure. It is now definitely stated that the expenses of the proposed Statutory Committee are to be defrayed by the Pharmaceutical Society. The disciplinary power of that Committee is to be ex-

tended to cases where persons employed by pharmacists may have been convicted of criminal offences, or been guilty of serious misconduct. On the other hand, safeguards are provided against removal of the names of pharmacists from the Register, or disqualification of corporate bodies carrying on business as chemists and druggists, without sufficient cause.

For the rest, the Bill provides, as did its predecessor, that there shall be fees payable on registration as a pharmacist and annually in respect of retention of the pharmacist's name on the Register; also that a further annual fee shall be payable for the registration of any and every shop where an authorised seller of poisons carries on business comprising the retail sale of drugs. Registration as a pharmacist will carry with it membership of the Pharmaceutical Society without payment of any entrance fee or subscription; but such membership will cease if at any time the individual ceases to be registered. In other words, payment of an annual retention fee for continued registration will be essential if membership of the Society is to continue. To this extent, there is justification for stating that membership of the Society will be compulsory, since—failing payment of the annual registration retention fee—there will be interference with the use of statutory titles, the keeping of open shop for the sale of poisons, and the dispensing of medicines for insured persons. In fact, registration will be essential in the case of all authorised sellers of poisons, carrying on business comprising the retail sale of drugs; but neither registration nor membership of the Society will necessarily be compulsory in the case of all other pharmacists.

Generally speaking, the Pharmacy and Poisons Bill has been greatly improved as the result of the fuller consideration permitted by the delay in its progress through Parliament. It is doubtful, however, if continued delay can result in further improvement of the measure from the pharmaceutical point of view. But what can be done in the direction of improvement ought to be done, and the pharmacists of Great Britain will, therefore, be well advised to give immediate attention to the provisions of the Bill if they feel dissatisfied with it in any respect.

Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc. occur.

Monday, March 27

Guild of Public Pharmacists, Liverpool Branch, at 8 p.m. Visit to Liverpool Royal Infirmary, Dispensary and x-ray department.

Wednesday, March 29

Manchester Pharmaceutical Association Junior Branch, Victoria Hotel, at 8.30 p.m. Whist drive. Tickets, including refreshments, 2s. each.

Thursday, March 30

North London Pharmaceutical Association and North Metropolitan Branch of the Pharmaceutical Society, Restaurant Frascati, Oxford Street, London, W.1. Annual dinner and dance. Tickets, 12s. 6d. each, from the secretaries.

West Ham and Eastern District Association of Pharmacists and Branch of the Pharmaceutical Society, Church Institute, 27 Romford Road, Stratford, at 3 p.m. Annual general meeting. Mr. A. Mortimer (vice-president) on "Things Politically Affecting Pharmacy."

BOG WATER AS A CURE.—In a recent issue of "The Irish Times" some interesting details of faith in the curative properties of bog water are given. A typical instance is that of a man new to co. Westmeath, who waded in the water while watching men cutting turf, and thus cured himself of gout in the feet.

ALDERMAN CHARLES RALPH STEVENS, 34 Mark Lane, London, E.C., and Queenborough, Kent, and Roonagh, Sittingbourne, Kent, manager of the Sheppy Glue and Chemical Works, Ltd., a former Mayor of Queenborough (1907-11 and 1927-30), who died on August 28 last, aged fifty-seven, left estates of the gross value of £19,006, with net personality £15,670.

Trade Notes

NEWTON, CHAMBERS & Co., LTD., Thorncliffe, Sheffield, are reducing the price of their Izal toilet rolls on April 1.

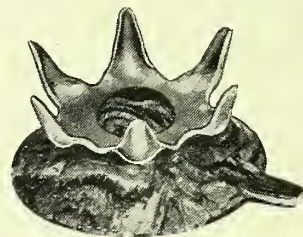
SERVICE is the keynote of the business of D. Mawdsley & Co., druggists' sundriesmen, Riga Street, Shudehill, Manchester.



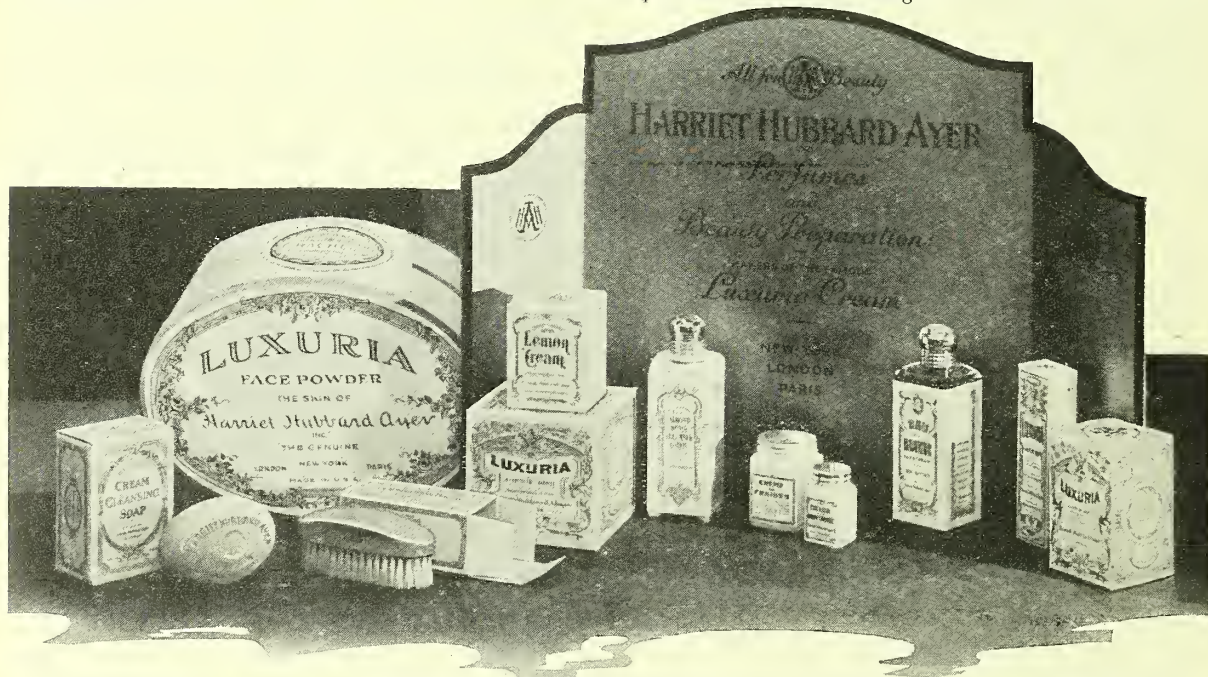
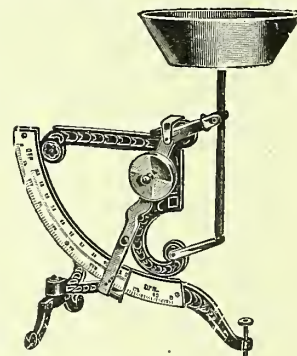
A CHARMING SHOWCARD.—Yardley & Co., Ltd., Pollen House, Cork Street, London, W.1, have sent us a specimen of their new display card for lavender soap, and it is one of the most attractive we have seen lately. A photograph of it is reproduced. The card measures 15 in. by 9½ in. The figures, which are printed in full colour, are in relief from the black background. The lettering is in gold and white. The showcard, which is of a size that can be accommodated on the counter or in the window, is worth writing for.

HIRST, BROOKE & HIRST, LTD., manufacturing chemists, Sheepscar Works, Leeds, writing regarding their cinema film, an account of which appeared in the *C. & D.*, March 18, p. 283, inform us that in addition to the places mentioned it is being shown this month at Lincoln, Bury, Doncaster, Worksop, Bridlington and Wakefield.

A NOVEL SOAP HOLDER.—Elmesan (London), Ltd., 66 Victoria Street, London, S.W.1, have drawn our attention to the Thrift suction soap holder for which they are the distributors. The holder consists of a rubber base surmounted by metal prongs. It is attached in position by pressure, held there by suction, and removed when desired by pulling the tab. Three dozen are supplied in a display carton.



A FOOD BALANCE.—Britton, Malcolm & Waymark, Ltd., 38 Southwark Bridge Road, London, S.E.1, can supply a food balance specially suitable for the use of diabetic patients. There is an increasing demand for an inexpensive and compact scale of this kind. The one referred to is shown in the illustration. It is a portable balance with a double scale and when folded only measures 9 in. by 9 in. by 1½ in., and is fitted with an aluminium pan. With the weight in one position, using the upper scale, food from 1½ oz. to 4 oz. can be weighed; with the weight in the other position, using the lower scale, food from ¼ oz. to 18 oz. can be weighed.



THE above illustration shows some of the more popular toilet luxuries and display material being offered by Harriet Hubbard Ayer, Ltd., 130 Regent Street, London, W.1. On the left is the cleansing brush and cream cleansing soap, which the company claim provide the most effective method for treating blackheads and enlarged pores. Other preparations in the photograph include Eau de Beauté; Almond, Honey and Cucumber Lotion; Crème de Fraises and Eyelash Grower. The three-fold showcard is a highly attractive production, supplied in two sizes and there is also available dummy cartons for display purposes, while the booklet entitled "All for Beauty" will be read with keen interest by ladies.

VENO DRUG CO., LTD., manufacturing chemists, Manchester, are issuing a brightly coloured window bill in connected with Dr. Cassell tablets.

REYNOLDS & BRANSON, LTD., manufacturing chemists, surgical and scientific instrument makers, Briggate, Leeds, have issued a new edition of their catalogue, a copy of which may be obtained on request.

BENBRI handkerchief puffs and lipsticks are advertised in this issue by Bennett, Briant & Co., 17 Paper Street, London, E.C.1.

THE BRITISH REMA MANUFACTURING CO., LTD., Halifax, have sent us a copy of their latest catalogue, a section of which is devoted to wet mixers and emulsifiers. A copy of the list will be sent on application to any of our readers interested in such apparatus.

ALLEN & HANBURYS, LTD., Bethnal Green, London, E.2, inform us that they have introduced Plough brand veterinary Caloplast. This is a new antiseptic kaolin poultice for horses, dogs, cattle, and other animals. It is supplied in $\frac{1}{2}$ lb., 1 lb., and 4 lb. tins.

Marriages

PARK—SCHOFIELD.—At Union Church, Brighton, on March 4, Sidney Robert Park, chemist and druggist, to Barbara Bullen Schofield.

Deaths

APLIN.—At Chilthorne Damer, on February 24, Mr. John Dare Aplin, chemist and druggist, aged seventy.

DAVIES.—On March 6, Mr. Thomas Davies, Ph.C., Bridge Pharmacy, Porth. Mr. Davies passed the Major examination in 1881.

HORSEY.—On March 11, suddenly, Mr. Frederick Samuel Horsey, F.S.M.C., chemist and druggist, 2 Queen Street, London, E.C.4. Mr. Horsey was born at Windsor in 1869, and was apprenticed at Southampton. Shortly after passing the Qualifying examination of the Pharmaceutical Society in 1892, he commenced business in Chichester Street, London, W.2. Always interested in optics, he acquired in 1901 the old-established optical business of E. G. Wood in Queen Street, Cheapside, eventually disposing of his pharmacies owing to its successful development. Mr. Horsey was an original member of the Society of Chemist-Opticians, and was elected president in 1913. He was for some time a member of the Paddington Borough Council, a vice-president of the City of London Retail Traders' Association, a member of various optical bodies, and a Past Master of the Galen Masonic Lodge. At Beckenham, where he resided, he was a valued member of the Cyphers Bowling Club. Mr. Horsey leaves a widow, two sons, and a daughter. The funeral took place at Elmers End Cemetery on March 15.

JONES.—On March 6, Mr. Lewis Jones, chemist and druggist, Kidwelly. Mr. Jones passed the Qualifying examination in 1881.

LATHAM.—On March 1, Mr. Walter Latham, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg., D.P.H. Manc., chemist and druggist, Earlestown, Newton-le-Willows, Lancs. Dr. Latham was born in 1865. He passed the Pharmaceutical Society's Qualifying Examination in 1891, and while in business continued the medical studies that he had already begun. After obtaining the triple qualification in 1896 he commenced practice, first at Ashton-in-Makerfield and afterwards at Earlestown, where he took a prominent part in local affairs.

PARK.—The funeral of the late Mr. C. J. Park, Ph.C., whose death was recorded in our issue of March 18 (p. 299), took place at Efford Cemetery on March 15. The first part of the service was held at St. Andrew's Church, where a large congregation assembled. The Plymouth Pharmacists' Association was represented by Messrs. F. J. Barge (president), T. B. Harvey (vice-president), G. L. Hellens (secretary), Miss W. E. Ball, Messrs. C. Condy U'Ren, J. H. Lewis, B. J. Woodrow, C. J. Yeates and A. Downing.

ROWSSELL.—At Belmont Nursing Home, Exeter, on March 18, Gwladys Mary, the beloved wife of Mr. Donald Rowsell, Nutbrook, Exmouth.

TAYLOR.—On March 10, Mr. James N. Taylor, wholesale perfumer, 67 Mortimer Street, London, W.1, aged

seventy-five. The business, which was founded in 1887, will be continued under the same name by Mr. Taylor's son, Mr. Stanley Taylor.

WYNNE.—At 206 Bedford Road, Rock Ferry, Birkenhead, on March 19, Mr. William Arthur Wynne, Ph.C., aged sixty-four. Mr. Wynne, who had been ill for some time, was in business in Birkenhead for over thirty years. He was at one time president of the Birkenhead and Wirral Pharmacists' Association, and also served on the local Insurance Committee. Prior to his last illness Mr. Wynne had intimated his decision to retire from business.

Personalities

MR. C. BAYLEY, chemist and druggist, Uppingham, has been elected a member of the executive committee of the local chamber of commerce.

MR. SAMUEL JACKSON, who recently completed fifty years as managing director of William Metcalf, Ltd., Church, Accrington, has been presented with a clock by the directors and staff.

MR. T. W. ATTENBOROUGH, Ph.C., St. Helier, Jersey, and his son, Dudley, while in the cabin of a fishing boat recently, were overcome by fumes from the engine. Fortunately it was not long before they were discovered, and they soon recovered consciousness when in the open air.

MR. F. GLADSTONE HINES (president of the Pharmaceutical Society of Great Britain) is the subject of an appreciative article in the February issue of the "Journal of the American Pharmaceutical Association." Mr. Hines was elected an honorary member of the Association during his recent visit to Toronto.

DR. J. T. DUNN, F.I.C., who has been elected president of the Society of Chemical Industry for 1933-34, is the principal of J. & H. S. Pattinson, analytical chemists, Newcastle-on-Tyne, and public analyst for Northumberland. Dr. Dunn previously had a distinguished academic career in London and elsewhere.

Business Changes

BOOTS, LTD., have transferred their business at Belper from 72 Tower Buildings to 22 King Street.

THE IMPEX Co., manufacturers of toilet preparations, have removed from 60-61 Chiswell Street, E.C.1, to larger premises at 9-15 Leonard Street, London, E.C.2.

T. C. MANSELL, LTD., chemists, 6 and 177 The Broadway, Cricklewood, London, N.W.2, have acquired new premises at 12 Cricklewood Lane and are opening shortly at that address.

MR. T. KING, chemist and druggist, has acquired the controlling interest in Hewett and Sons, Ltd., chemists, 36 St. George's Road, Brighton. The company will continue to trade under the same style.

THOMAS & LINTON, LTD., druggists' sundriesmen, have removed from 4 Racquet Court, E.C.4, to larger premises at 5 Whitehorse Buildings, 100 High Holborn, London, W.C.1. Telephone: Holborn 3716-17.

Telegrams :
"Atoleine
Sedist,
London."



Telephone :
Bermondsey
1141

John Bell, Hills & Lucas Ltd.

TRIAD BRAND
EXTRACT OF MALT & COD LIVER OIL
with CHERRY PARRISH'S FOOD

Send for Sample & Prices

Oxford Works, Tower Bridge Road, London, S.E.1

Tubes and
vials of 24
Cat units,
retail 3/6

From Wholesalers,
or the British
Empire Agents.

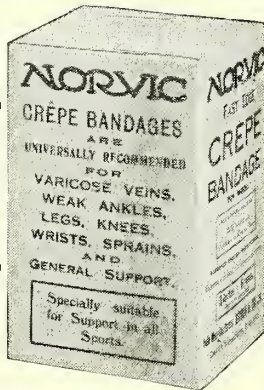
UPSHER SMITH
DIGITALIS
TINCTURE TABLETS

MATTHEWS LABORATORIES, LTD., CLIFTON, BRISTOL, ENG.

**INCREASE
YOUR
SALES**

A small window or counter
display will bring profit-
able results. A P.A.T.A.
line with full 33 1/3% profit
From the leading wholesalers
Sole manufacturers :
Grout & Co., Ltd.
35 Wood St., London, E.C.2

WITH
NORVIC
CRÊPE BANDAGES



'HOLADIN'

An Extract of the Entire Pancreas Gland.

Supplied in 3 gr. gelatine capsules, and
issued in bottles containing 25 and 100.

Originated and Manufactured by

FAIRCHILD BROS. & FOSTER (Inc.)
New York. 65 Holborn Viaduct, London, E.C.1

Agents: **BURROUGHS WELLCOME & CO.**
London, Sydney, Cape Town.

GLANDULAR PRODUCTS
Every kind and every form

PAINES & BYRNE Ltd.

31 Southampton Street, W.1

SUGAR COATED PILLS
MADE BY
PARKINSONS

Packed in 1d., 3d., and 1/- boxes.

PARKINSONS, LTD., Manufacturing Chemists, BURNLEY

90% **S. V. R.** 95%
1932
B.P.

Write for Prices

FOR
TINCTURES

JAS. BURROUGH LTD. 1 Cale Distillery,
LAMBETH, S.E.11

"VITAMIN TESTED YEAST"

Yeast specially prepared for medicinal purposes

GUARANTEED ABSOLUTELY PURE

MIDDLEY & PARKINSON, LTD., Warren Works Pudsey, LEEDS

Sole selling agents for Great Britain—

THE OLD STRAND CHEMICAL & DRUG CO., LTD.
Audrey House, Ely Place, London, E.C.1

MANY SUCCESSES IN THE EXAMINATIONS

Your Opportunity to

QUALIFY IN OPTICS

PRACTICAL WORK. Personal tuition in the
practical work is a distinctive feature. Students can
avail themselves of the practical classes held during
examination times when they are in London.

Expert Tuition for the **SIGHT-TESTING DIPLOMAS** of the
Worshipful Company of Spectacle Makers (F.S.M.C.); the British
Optical Association (F.B.O.A.); the National Association of
Opticians (F.N.A.O.); or the College of Optics (F.C.O.).

Write for full particulars—

C. A. SCURR, M.P.S., F.S.M.C., F.B.O.A., F.N.A.O., B.Sc., F.I.O., F.C.O.
50 HIGH STREET, BARNET, LONDON, N.

NURSE HARVEY'S MIXTURE

A safe, simple and reliable remedy for Children's
Ailments is advertised so extensively in the
daily and weekly Press as to bring mothers to the
retailer without effort on his part.

The selling has been done before the mother
reaches the chemist, and, having supplied her, it
is only common sense to claim she will buy other
family necessities from him. Moreover, the con-
tinuous demand for it produces a quick turnover.

For Direct Terms apply to—

OSCAR SCRUTON & CO., YORK

THE PRESCRIBER

A Monthly Review of Medical Science

Most useful to the progressive Pharmacist

MARCH 1933—BRITISH SPAS

Beautifully illustrated. 3s. 6d. post free

Through any Medical Bookseller, or direct from :—
"THE PRESCRIBER" Offices, 13 Glencairn Crescent, Edinburgh, 12

DISEASES AND REMEDIES. Price 5s., by post 5s. 3d.

VETERINARY COUNTER PRACTICE. Price 7s. 6d. net,
by post 8s.

THE PHOTOGRAPHIC CHEMIST. Price 3s. 6d., by post
3s. 8d.

THE ART OF DISPENSING. Price 8s., by post 8s. 6d.

THE C. & D. PRICE LIST FORMULARY, "P.L.F."
Price 2s. 6d. post free.

THE "CHEMIST AND DRUGGIST," 28 Essex Street, W.C.2

THE CHEMIST AND DRUGGIST

VOL. CXVIII. MARCH 25, 1933

NO. 2772

A Year of Subsidised Research

THE report of the Medical Research Council covering the year 1931-32 (Stationery Office : 2s.) reached us almost simultaneously with that of the report of the Department of Scientific and Industrial Research for the same period (Stationery Office : 3s.). These reports have at least one feature in common—an expression of justifiable regret that the work reviewed has suffered as a result of economic difficulties. Of the two, the report of the Medical Research Council is the more readable from the standpoint of pharmacy, including as it does the discussion of several matters of importance in pharmacology and biochemistry. A typical example is the position with regard to malaria, which is far from being the almost extinct disease that many people believe it to be. The report mentions that the world's annual expenditure on quinine amounts to about £2,500,000, representing sufficient treatment for 47,000,000 cases. It may be pointed out, in passing, that quinine has other uses; however, the fact remains that the chemical and physical properties of the parasite concerned still await study. A small team is working on bird malaria at Cambridge, and recently, with the generous assistance of Lord Leverhulme, another research unit has been established in London for the investigation of the problem. Turning to canine distemper, the report notes that the usefulness of the "Field" fund, now closed, has not been limited to the immediate work in hand, but that, for instance, the method of using vaccine and virus for prevention as worked out in these studies has been used for the immunisation of men against yellow fever in West Africa, and is being extended in another direction. Another study promising important results is that of the distribution of acetylcholine in the tissues of the body.

Sterols and Vitamins

The chemistry of the sterols and the vitamins is far from complete, and several pages of the report are filled with intriguing details of work still in progress on this elusive branch of biochemistry. It has been shown by a Cambridge investigator, Mr. J. D. Bernal, that the spatial relation of the structural units in the sterol molecule cannot be that shown by the Windhaus-Wieland formula; and a consideration of other lines of evidence has led Dr. Rosenheim and Dr. King to formulate a new conception of the general structure of the sterols. It seems probable that, as one result of this new conception, an explanation will be found of various difficulties, not only in the structure of sterols but also in their chemical relationships to bile salts and to some at least of the hormones. An attempt is being made to isolate the natural vitamin D by methods which were successful in isolating calciferol from irradiation mixtures, material having been given for the purpose by the Glaxo Laboratories. Another related problem is the

distribution of calciferol among the organs of the body; large quantities of this potent substance have been presented by The British Drug Houses, Ltd., and it is hoped that the puzzling questions of its unequal distribution and final destruction in the body will be solved. The position with regard to international standards for vitamins, serums and other biologically tested products is reviewed, and details of the collections of type cultures are given. Clinical research receives appreciative notice; in this connection brief reference is made to the Therapeutic Trials Committee, which has so far accepted applications for clinical experiment with new remedies, fourteen in all, manufactured by A. Boake, Roberts & Co., Ltd.; Boots Pure Drug Co., Ltd.; The British Drug Houses, Ltd.; Burroughs Wellcome & Co.; May & Baker, Ltd.; and Schering-Kahlbaum A.G. The tests of four of these remedies have been completed. One other topic in this report may be briefly mentioned. The study of what appear to be extremely minute organisms that can be artificially cultivated, but are devoid of pathogenic action, has been undertaken by Mr. Barnard for some years. Hitherto their growth has been so slow as to preclude any likelihood of chemical detection of vital activity; but recent improvements suggest that a test of this kind may soon be applicable.

Research Applied to Industry

Turning to the second of these reports, we note that only £54,466 was received in fees at the National Physical Laboratory during the year under review, instead of the estimated amount of £67,050; work has in some instances been slowed down in consequence. This financial stringency has an obvious bearing on grants to external bodies. "It has always been our policy," says the report, "to encourage research associations to become self-supporting at the earliest possible opportunity and, in considering the claims of each research association for the continuance of State aid, we have endeavoured to secure that the Department's grants should be conditional upon the maximum effort being put forth by the industry concerned." In the section headed "Chemical Research" it is mentioned that about twenty-one chemical firms and organisations have applied for advice and assistance. The same section covers summaries of work undertaken in chemotherapy and in the study of synthetic resins, tars and waters. In other parts of the report dental amalgams, denture-base materials, x-ray analysis of crystals and international standards of measurement are dealt with, bibliographies being appended. "The most important event in connection with the standards of mass," it is stated, "is the completion of the one-kilogram vacuum balance for weighings of the highest precision. . . . Temperature variations during weighing are eliminated by installing the balance in an inner chamber of one of the vaults of Bushy House, and by operating and reading the balance from outside this chamber." Taken in conjunction, these two Government reports give an excellent general impression of research continually in progress, enabling readers in all professions and industries to keep in touch with the kinds of scientific investigation in which they are primarily interested.

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

PHARMACY

Syrup of Ephedrine.—The following formula for Syrupus Ephedri is given in "Svensk Farmaceutisk Tidskrift," February 28, 1933:—

Ephedrine hydrochloride	0.16 gm.
Ethylmorphine hydrochloride ..	0.032 gm.
Distilled water	7 gm.
Compound liquid extract of thyme ..	4 gm.
Benzoic acid	0.2 gm.
Glucose	15 gm.
Syrup to	100 gm.

Mix and filter.

Danish Formulas.—The following preparations have been added to the formulary of the Danish Association of Pharmacists:—

ATROPEDRIN TABLETS DAK.—

Amidopyrin	50 gm.
Theophylline	50 gm.
Caffeine	25 gm.
Dry extract of belladonna	10 gm.
Ephedrine hydrochloride	5 gm.
Agaricin	1.25 gm.
Arrowroot	48.75 gm.

Mix, add a sufficiency of solution of gelatin (2 per cent.), approximately 30 gm., and granulate. Dry the granules at a temperature not exceeding 40° C.; add 10 gm. of talc and compress into 1,000 tablets, each weighing 0.2 gm.

CALSALIN DAK.—

Sodium lactate	320 gm.
Calcium lactate	350 gm.
Sugar in powder	470 gm.

Heat the sodium lactate on a water bath until it yields a syrupy liquid; remove from the source of heat and add the calcium lactate gradually in small portions. Pass the mixture through a sieve and add the sugar, dry the granular product at a temperature not exceeding 40° C., then gradually increase the temperature to 90° C. and maintain at this temperature till constant weight and again pass through a sieve. Fill in well-corked bottles free from moisture and store in a dry place.

CREMOR EXPLORATORIUS DAK.—

Boric acid	24 gm.
Boiling distilled water	780 gm.

Dissolve and when cold complete with distilled water to 800 gm. Add:

Tragacanth, in coarse powder	25 gm.
------------------------------------	--------

Set aside for a few hours, with occasional agitation, then add:

Glycerin	165 gm.
Alcohol (90 per cent.)	25 gm.

Complete with water to 1,000 gm. and strain.

EPHEDRINE TABLETS DAK.—

Ephedrine hydrochloride	50 gm.
Milk sugar	100 gm.
Arrowroot	40 gm.
Solution of gelatin (2 per cent.)	a sufficiency

Mix, using approximately 32 gm. of the solution of gelatin, and granulate. Dry the granules at a temperature not exceeding 40° C., then add 10 gm. of talc and compress into 1,000 tablets, each weighing 0.2 gm. Each tablet contains 0.05 gm. of ephedrine hydrochloride.

AGRICULTURAL CHEMISTRY

Eradication of Stinging Nettle.—G. H. Bates ("Journal of the Ministry of Agriculture," 39, 912) states that spraying with sodium chlorate solution (5 per cent.) has proved very successful on the Continent as means of eradicating the stinging nettle (*Urtica dioica*) from grass-land. This is applied to the extent of one gallon per square yard after cutting off the shoots in order to ensure reaching the underground portions of the weed.

ANALYTICAL CHEMISTRY

Colour Test for Rotenone.—H. A. Jones and C. M. Smith ("Industrial and Engineering Chemistry," Analytical Edition, 5, 1, 75) have adopted the following method as a qualitative test for the presence of rotenone:—One c.c. of an acetone solution of rotenone is treated with 1 c.c. of nitric acid (1 in 2) and the mixture is allowed to stand for half a minute. It is then diluted with 8 to 9 c.c. of water and 1 c.c. of strong ammonium hydroxide is added. A blue colour is produced which is almost identical with that given by bromothymol indicator at PH 7.2. An amount of 0.1 mgm. of rotenone is detected by this test.

Melanuria.—S. N. Blackberg and Justine O. Wagner call attention to the difficulties ("Journal of the American Medical Association," 100, 5, 335) arising in applying the ferric chloride, bromine water or lead acetate test for melanin in urine, and to the confusing results obtained. They have adopted the following test:—(1) A twenty-four hour specimen of urine is evaporated to one-fourth of the original volume. (2) One gm. of potassium persulphate is added for each 100 c.c. of the concentrated urine. (3) At the end of two hours, an equal volume of absolute methyl alcohol is added. The precipitated melanin is allowed to settle. (4) The precipitate is filtered off and washed with water till the washings are colourless, then washed with methyl alcohol to remove any soluble pigments remaining. Finally, it is washed with ether. If the test is positive, there remains on the filter-paper a brownish-black precipitate, which can be dissolved off with alkali—most conveniently with 5-per-cent. sodium hydroxide. Acidification of the alkaline solution causes a reprecipitation of the melanin. This test gave positive reactions only in cases of melanotic malignant growth with metastatic involvement of the liver.

Rotenone Assay.—H. A. Jones ("Industrial and Engineering Chemistry," Analytical Edition, 5, 1, 23) finds that carbon tetrachloride provides a more selective and ready separation of rotenone from plant material than the ether extraction method previously used. Thoroughly air-dried material is ground to about 20 mesh and 50 gm. extracted with carbon tetrachloride in a large Soxhlet apparatus for 8 to 10 hours. It is suggested that extraction be run overnight (17 hours) as samples containing more than 5 per cent. of rotenone require a longer time for complete extraction. The extract is concentrated to 25 c.c. in a small beaker flask and set aside to crystallise (for 18 to 24 hours). Crystallisation is completed by cooling for ten to fifteen minutes in ice before filtration by suction on to a tared Gooch crucible. After washing with 10 to 20 c.c. of ice-cold carbon tetrachloride, the crystals are dried to

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

constant weight in air at room temperature, overnight drying being sufficient. The product contains one molecule of solvent of crystallisation, and multiplication of the weight obtained by the factor 0.719 gives the amount of rotenone.

BIOLOGICAL CHEMISTRY

Vitamin A Characteristics.—F. H. Carr and W. Jewell ("Nature," 3299, 92) have prepared by fractional distillation in high vacuum a vitamin A preparation which is more active than any obtained hitherto. The antimony trichloride blue value is 78,000 for the fraction boiling between 136° and 137° (10 -5 mm), as compared with 65,000 for the vitamin A concentrate of Heilbron and his colleagues. The ultimate analysis gave figures in excellent agreement with the formula suggested by Karrer ($C_{20}H_{30}O$). By biological tests 0.006 mgm. gave slightly better growth in rats than one unit (per diem) of international standard carotene (0.001 mgm.). The research work was carried out in the laboratories of The British Drug Houses, Ltd.

Stability of Vitamin A in Cod-Liver Oil Emulsions.—H. N. Griffiths, T. P. Hilditch, and J. Rae communicated to the Society of Public Analysts ("Chemistry and Industry," 51, 51, 1042) the results of tests upon loss of vitamin A during storage of cod-liver oil emulsions. Vitamin-A potency was determined by the antimony trichloride colour test and spectrographic examination. There was no appreciable decrease in vitamin activity after four months, though there was evidence of some change within six months, mainly in the original oil. It is concluded that cod-liver oil emulsion remains without appreciable alteration in vitamin-A content for seven or eight months when stored in the dark in well-stoppered amber glass bottles.

Ascorbic Acid as the Antiscorbutic Factor.—A. Szent-Györgi and W. N. Haworth ("Nature," 3297, 24) propose the name ascorbic acid for the substance isolated from adrenal cortex possessing the antiscorbutic properties of vitamin C, and which has previously been termed hexuronic acid. The reason for the change is that the formula ($C_6H_8O_6$) for this crystalline compound contains one molecule of water less than that required for a hexuronic acid. Professor Szent-Györgi ("Nature," 3303, 225) states that the way is now open for direct chemical work regarding the identity of vitamin C and ascorbic acid. The discovery that varieties of paprika (*Capsicum annum*) contain ascorbic acid has enabled its preparation in relatively large amount (over 1 lb. in weight). The mono-acetone derivative forms beautiful crystals and provides a ready means of purification by recrystallisation, the ascorbic acid being regenerated by simply boiling with water for a few minutes. The ascorbic acid recovered therefrom is fully active, and thus provides definite evidence for the identity of ascorbic acid with vitamin C. The most remarkable chemical property of this acid is its high reducing power, which is unique among purely carbon compounds. The original finding that ascorbic acid is a simple substance ($C_6H_8O_6$) is confirmed.

Lysozyme.—A. Fleming discusses, in the "Proceedings of the Royal Society of Medicine" (26,2,71), the nature and properties of lysozyme, a name given by him to an antibacterial ferment or ferment-like body widely distributed in animals and plants. The rapidity of its action increases up to a temperature of 60° C., but above 65° C. it is destroyed more or less rapidly. It acts best in a neutral medium. When dry, it can be preserved for a long time. The fact that tears are rich in lysozyme but contain little protein makes it obvious that lysozyme action is not a function of the ordinary proteins of the body. Certain facts indicate that intracellular digestion is associated with lysozyme. Generally speaking, all human tissues contain the lytic ferment to a greater or less extent. Several roots and tubers have been examined for its presence, with the result that only the turnip

showed a marked bacteriolytic effect. On the other hand, lysozyme was frequently present in the various parts of the cut flower. While acting most strongly on non-pathogenic bacteria, it can, when allowed to act in the full strength in which it occurs in some parts of the body, attack pathogenic organisms. It is very easy to make bacteria relatively resistant to it. There are differences in the lysozyme of different tissues and in different animals whereby bacteria are susceptible to different lysozymes in varying degrees.

Inhibitor of Vitamin A Colour Test in Cod-Liver Oil.—A. Emmerie ("Nature," 3306, 364) has isolated from cod-liver oil the substance which acts as an inhibitor of colour development towards the antimony trichloride colour test for vitamin-A content of cod-liver oil. This method consists in dissolving the mixed acids from the saponification of medicinal cod-liver oil in five volumes of petroleum ether, followed by drying with anhydrous sodium sulphate and shaking up vigorously with one-tenth of its volume of diluted sulphuric acid (5 vol. 96 p.c. acid to 2 vol. of water). The sulphuric acid layer (containing the inhibitor) was poured into a large amount of cold saturated sodium sulphate solution and the mixture extracted several times with petroleum ether. The resulting oil, after removal of the solvent, was subjected to a second shaking out with acid. The purified oil boiled at 203° C. under 1 mm. pressure and consisted of a pale yellow viscous substance, of the composition $C_{21}H_{36}O_3$, with a molecular weight of 332. About 2.5 c.c. was obtained from one litre of cod-liver oil. The inhibiting power of the substance is some four or five times that of indol. Catalytic hydrogenation showed an absorption of about 4 atoms of hydrogen per molecule, and the hydrogenated product does not act as an inhibitor of the Carr and Price reaction. Inhibition of the antimony chloride colour test for vitamin A is not due to unsaturation alone, since neither pure nor oxidised fatty acids (oleic, linoleic) act as inhibiting substances.

PURE CHEMISTRY AND PHYSICS

Fermentation Citric Acid.—O. E. Max and H. T. Herrick (U.S. Department of Agriculture, Circular No. 118) in their digest of the literature relating to the production of organic acids by fermentation state that during the last five years fermentation citric acid has taken a prominent place in American chemical industry. The process used is closely guarded as a trade secret but undoubtedly consists of shallow pan fermentation of sucrose by a strain of *Aspergillus niger*, and the fermentation is probably completed in less than nine days. Production is limited to one company, and unofficial estimates place it at between 2,500 and 5,000 tons per annum.

Adamantane.—S. Landa and V. Machacek announce ("Collection of Czechoslovak Chemical Communications," 1933, 5, 1) that they have identified a new hydrocarbon in the petroleum from Hodonin, Moravia. The substance is a colourless but odorous, volatile, crystalline solid, melting at 268° C. The hydrocarbon is characterised by an extraordinary stability towards most chemical reagents except concentrated sulphuric acid, which causes carbonisation. From ultimate analyses and molecular weight determinations its formula is shown to be $C_{10}H_{16}$ and its molecular heat of combustion is 1,451.7 calories. The authors suggest that adamantane, the odour of which recalls both camphor and turpentine, could probably be extracted from other natural oils.

BACTERIOLOGY

Staining Method for Pneumococci.—F. C. O. Valentine gives, in "The Lancet" (5706,22), a staining method for the direct typing of pneumococci. Three or four loopfuls of Type I serum are mixed on a slide with a fair-sized loopful of sputum and mounted with a cover-glass. The edges of the cover-glass are sealed with vaseline. Similar preparations are made with Types II and

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

III serums. It is essential that complete neutralisation of the capsule should be obtained, and to ensure this the preparations should be left for twenty to thirty minutes. After this the cover-slips are slid off and discarded. The films left on the slides are allowed to dry and the bulk of the vaseline is scraped off with a knife. The vaseline remaining will not interfere with the staining and blotting of the slides, and it may finally be removed by warming until it is just melted and washing over with xylol. Before staining wash the film under the tap to remove the serum, stain for two or three minutes with dilute carbol fuchsin, wash and counter-stain for ten seconds with carbol thionin; wash and blot dry. It will be found that the bodies of all bacteria stain practically black, and that everything else is red. The capsules of pneumococci treated with the homologous serum appear quite large and stain a strong red, whereas the "unneutralised" capsule does not stain. The dilute carbol fuchsin used is filtered Ziehl-Neelsen stain freshly diluted in a test-tube with five or six parts of water. The carbol thionin contains nine parts 5-per-cent. phenol in water and one part 50-per-cent. alcohol saturated with thionin. In a new bottle this stain usually precipitates, but once the bottle is lined with deposit it lasts well.

DENTISTRY

Effect of Borates on the Setting of Plaster of Paris.—C. S. Gibson and N. Johnson ("Chemistry and Industry," 51, 51, 399 1) publish results of investigations of the use of borate solutions as a means of controlling the setting time, expansion, and hardness of plaster of Paris casts for dental use. The compounds tested were sodium diborate, potassium diborate, sodium pentaborate and potassium pentaborate. The mixing adopted, 80 gm. of plaster to 48 c.c. of solution (100:60), was the same as in previous investigation (with borax-Rochelle salt solution). Both the diborates and pentaborates exhibited equal powers in retarding setting of plaster at low equivalent concentrations (up to 0.05 N), but the diborates are much more powerful retarders at the higher concentrations. Sodium and potassium pentaborates have almost identical retarding powers up to the solubility limit of the potassium salt (0.125 N). The diborates also have approximately equal effects up to the solubility limit of sodium diborate (0.25 N). The retarding power increases up to 0.3 N sodium pentaborate and 0.4 N potassium diborate, but thereafter decreases. All the four borates reduce the expansion of plaster on setting. At concentrations up to 0.1 N they are comparable in this respect with such powerful agents as potassium sulphate (which is an accelerator). With thicker mixings (40 c.c. and 35 c.c. solution to 100 gm. plaster) products of greater hardness are obtained and expansion is greatly diminished. There appears to be a specific hardening due to the borate which varies little with concentration. Expansion diminishes and setting time lengthens with increasing concentration of borate solution. It is necessary to employ a somewhat slow setting mixture to obtain minimum expansion, but pentaborates offer advantages where low expansion and fairly quick setting are desired.

ESSENTIAL OILS

Peppermint Oil Produced in Florida.—Christensen and Hiner ("Journal of the American Chemical Association," 1932, 21, 793) have examined the essential oil distilled in Florida from plants of Japanese origin, grown during 1927-1930. The yield of oil was from 0.18 to 0.56 per cent. calculated on the fresh plant. The oil had the following characters:—S. g. at 25°—0.8927 to 0.8981; refractive index at 25°—1.4530 to 1.4774; optical rotation -39.7° to -35.2°; free menthol 69 per cent.; combined menthol 3.38 to 6.24 per cent. No gradual decrease in menthol from one year to the other was observed.

A New Synthesis of Cadalene.—Barnett and Cook ("Journal of the Chemical Society," 1933, 22) have

effected a new synthesis of cadalene, which is of considerable importance in essential oil chemistry, as the dehydrogenation of sesquiterpenes by means of sulphur or selenium, is now the best method of arriving at the constitution of the sesquiterpene skeleton. Ruzicka and Seidel have already synthesised it, but an element of uncertainty existed as in the synthesis from carvone, they used aluminium chloride to effect ring closure, and it is recognised that migrations of alkyl groups are frequent under the influence of this reagent. The present authors have now confirmed the accuracy of Ruzicka and Seidel of deductions that cadalene is 1:6 dimethyl-4-isopropyl naphthalene. They started with 1:6 dimethyl naphthalene, which is now a recognised constituent of coal tar and is easily obtainable in quantity. It has been shown that the sulphonation of this compound occurs in position 4 and it was thought probable that bromination in the dark would lead to the bromine going into the same position. The bromo-compound so obtained was converted into the corresponding dimethylnaphthoic acid through the medium of the magnesium derivative. The dimethyl-carbinol obtained from the interaction of the ethyl ester of this acid and methylmagnesium iodide was dehydrated by picric acid and gave the picrate of 1:6 dimethyl-4-isopropenyl naphthalene, which was reduced by sodium and alcohol. The product was finally dehydrated with selenium and yielded the dimethyl isopropyl naphthalene identical with cadalene, thus confirming Ruzicka's synthesis.

Indian Essential Oils.—The "Journal of the Indian Institute of Science" (15A, vii, 71) contains four interesting communications on a number of Indian essential oils. The first is by B. S. Rao, on the essential oil from the leaves of *Litsæ Zeylanica*. The yields of oil obtained from fresh, partly dried, and dried leaves were, respectively, 0.6 per cent., 0.22 per cent. and 0.05 per cent. The three oils had the following characters:—

	I	II	III
Specific gravity at 30° ..	0.8376	0.8383	0.890
Refractive index at 30° ..	1.4874	1.4874	1.4980
Optical rotation at 30° ..	+0.6°	+2°	+1°
Acid value	0.4	0.3	0.47
Saponification value ..	0.7	0.6	22.6
Saponification value (after acetylation)	41.7	45.6	81.6

The oil now investigated was from fresh leaves and did not materially differ from the above figures. It was found to consist mainly of terpenes (ocimene and α -pinene) and sesquiterpenes. The sesquiterpenes are entirely dicyclic and belong to the cadalin group. A crystalline dihydrochloride melting at 100-101° was obtained. One of the sesquiterpene fractions gave a nitrosochloride melting at 165°, which may be that of caryophyllene. The percentage composition of the oil is approximately α -pinene 3.5; ocimene 60; terpene alcohols 1.0; dicyclic sesquiterpenes 27; sesquiterpene alcohols 3.0. The second paper deals with the essential oil from the flower-heads and stalks of *Andropogon Kuntzeanus*, and is also by Rao. The grass from which the material was obtained was the variety *foveolata*, which closely resembles *A. odoratus*. On steam distillation the grass yielded 0.27 per cent of oil, of which about 40 per cent. consisted of dicyclic tertiary sesquiterpene alcohols belonging to the cadalin group. About 10 per cent. of solid *laevo*-camphene was isolated, and possibly an isomeric form of camphene. Borneol and α -pinene were also found in small amount. The essential oil from the leaves of *Thymus oliphyllum* was investigated by Singh and Rao. It is stated that many varieties of thyme are found along the Himalayan range. *Thymus serpyllum* grows in parts of the Punjab and Kashmir, and the leaves yield about 0.59 per cent. of oil. The Indian oil now examined has physical characters which are somewhat different from those usually accepted for the oil, and approximate to those of *Thymus vulgaris*. The two samples examined contained 52.7 per cent. and 42 per cent. of phenols, mainly carvacrol. Another

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

phenol is present, which has not, so far, been characterised. The oil is rich in *p*-cymene, and γ -terpinene is present. As indicated by the melting points of phenylurethanes obtained, borneol and α -terpineol are probably present. In the higher boiling fractions of the oil the sesquiterpene zingiberene was definitely identified. The following is the approximate composition of the oil:—Phenols (mainly carvacrol) 53 per cent.; *p*-cymene 17 per cent.; terpenes (γ -terpinene and others) 8 per cent.; terpene alcohols 5 per cent.; sesquiterpenes (zingiberene and others) 4 per cent. The last of the oils under consideration is that from the leaves of *Cinnamomum Zeylanicum*, which has been investigated by Shintre and Rao. The true cinnamon is not cultivated in India, but is found wild in the Western Gháts. In view of the fact that seven or eight well-defined varieties have been observed in the moist forests of the Western Gháts, it appeared of interest to make a chemical examination of the essential oils obtained from them. The present paper deals with the oil obtained from a variety growing in the neighbourhood of Chamavajnavag in Mysore, which appears to be fairly common in the hilly parts of Mysore and was identified by the botanist at Coimbatore. The leaves yielded on distillation a yellow oil differing appreciably from the cinnamon leaf oil of commerce, the eugenol content being only 15 per cent. After fractional distillation *laevo*- α -pinene and *laevo*- β -phellandrene were identified in the terpene fraction. A tertiary alcohol was found in the fraction boiling at 140–160° at 100 mm., which yielded *trans*-terpin on treatment with sulphuric acid. This indicates the presence of γ -terpineol, a substance only once previously reported as existing as a natural constituent of an essential oil, that of *Cupressus torulosa*. The sesquiterpene fractions gave several derivatives of α -caryophyllene, namely the solid alcohol (m. p. 95–96°), the nitrosochloride (m. p. 171°) and the nitrosate (m. p. 163°). The optical rotations of the sesquiterpene fractions were low, so that it is probable that a considerable amount of the inactive form of α -caryophyllene is present. Additional evidence for this was found in the fact that no solid dihydrochloride could be obtained, this derivative being liquid in the case of inactive α -caryophyllene. The approximate composition of the oil is as follows:—Terpenes (α -pinene and β -phellandrene) 4 per cent.; terpene alcohols (γ -terpineol and others) 3 per cent.; eugenol 15 per cent.; sesquiterpenes (mainly α -caryophyllene) 62 per cent.; sesquiterpene alcohols 7 per cent.

HYGIENE

Carbon Monoxide Poisoning from Motor-car Fumes.—J. S. Owens discusses ("Lancet," 5708, 154) the chances of asphyxiation by motor-car fumes in busy streets. With a little over 15 lb. of air supplied per lb. of petrol, the exhaust gases should contain nothing but carbon dioxide, water and nitrogen. The air in busy city streets contains a measurable quantity of carbon monoxide averaging 0.8 part per 10,000 in fourteen towns of the U.S.A., about 0.5 in the street air in Chicago, and ranging from this to about 0.15 in suburban districts. Samples taken in central London, during the winter, gave 0.3 part per 10,000. The concentration in the open street thus rarely approaches the danger limit, but it does not follow that it never occurs. In all cases of atmospheric pollution we have been accustomed to rely upon the action of the wind to clear away the impurities. We perhaps do not realise that all the conditions favouring high concentration may at some time occur together. For example, a long street of high buildings may be crowded with motor-vehicles owing to some hold-up of the traffic. This may happen on a day when the wind has fallen and when the temperature gradient overhead does not encourage the upward escape of hot gases. In such circumstances it appears possible that the concentration of poisonous gases might become sufficiently high to be dangerous.

Effects of Electric Shock.—W. B. Kouwenhoven and O. R. Langworthy ("Journal of the Franklin Institute," 215, 1, 1) discuss the results of experimental investigations of the effects of electric shock. The test animals were rats and dogs, the latter being killed by relatively small currents owing to ventricular fibrillation of the heart. The more resistant rat apparently does not suffer from such failure of the heart muscles to contract with co-ordinated rhythm, and this was advantageous in studying effects upon the nervous system. As regards voltage effects, alternating currents of 110, 220, and 500 volts were more deadly than direct currents of corresponding voltage, but 1,000-volt continuous circuit was more lethal than 1,000-volt alternating current. Autopsies of rats paralysed by electric shock showed that hæmorrhages in the nervous system were responsible for immediate or subsequent death. Paralysed rats could be kept alive for a few days but there was no chance of permanent recovery. In such cases the nerve cells were damaged, the angles from which nerve fibres originate being destroyed. It is emphasised that the prevailing opinion that low-voltage alternating current is not dangerous to human life is untrue, especially when moist conditions reduce body resistance. No rat survived a one-second shock at 1,000 volts (d.c.) when current entered through the head, but 42 per cent. recovered if the brain was eliminated from the circuit. Surge discharges (equivalent to lightning) produced tremors of the musculature, and the action of the heart was definitely affected. The proportion of electric current actually flowing through the heart varies with the pathway, 9.5 per cent. passing through the heart with flow parallel to the long axis of the body and only 3 per cent. when flow is transverse thereto. The duration of contact determines largely whether or not an individual will survive an electric shock. An alternating current of 90 to 100 milliamperes is dangerous to human life. The majority of deaths from electrical accidents results from ventricular fibrillation, as the human heart seldom recovers spontaneously from this effect. Injection of potassium chloride solution into the carotid arteries totally inhibits contraction of the heart musculature, and this provides a possibility of overcoming ventricular fibrillation.

MEDICINE

A Chloramine Liniment.—J. W. Tomb gives ("British Medical Journal," 3765, 367) a method of overcoming the difficulty of varying chlorine content in chlorinated lime liniment prepared as suggested by him in 1924. He now uses chloramine in an emulsion of equal part of lime water and arachis oil (or olive oil), the chloramine readily dissolving in the lime water of the emulsion. The strength is usually from 2 to 4 per cent. of chloramine.

Treatment of Furunculosis.—W. A. Ball uses with success the following combination of remedies in cases of furunculosis:—Thyroid., gr. $\frac{1}{2}$, potass. permang., gr. $\frac{1}{8}$ (in a tablet), t.d.s., and the mixture, also t.d.s.:—Ferri sulph., gr. iij; mag. sulph., gr. xxx; ac. sulph. dil., ℥ x; liq. arsen., ℥ ij; aq. chlor. ad. 3 ss. The boils ceased with a dramatic suddenness. ("The Practitioner," 775, 1.)

Dermatitis Following Contact with Ordinary Dyes.—E. M. Killick and J. T. Ingram give details ("Lancet," 5707, 77) of a case of skin eruption following the wearing, in summer, of a blouse dyed with a black dye belonging to the class of azo direct dyes. After reviewing the literature of similar and other cases, the authors controvert the widely accepted view that dermatitis arising from the wearing of dyed material is caused by some compound such as paraphenylenediamine. They believe that cases of dermatitis due to the wearing of materials dyed with normal types of textile dyes are more common than the lack of information would suggest.

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

Treatment of Acne Rosacea.—S. Ayres and N. P. Anderson comment ("Journal of the American Medical Association," 100, 9, 645) on the frequent occurrence of *Demodex folliculorum* in the pustules of acne rosacea. In the great majority of such cases the results of which could be traced, striking improvement or cure followed the use of the following ointment:—Betanaphthol 2 gm., sublimed sulphur 4 gm., balsam of Peru 15 gm., soft paraffin 15 gm. The patients were directed to wash with soap and water every night and to apply the ointment for three nights, afterwards repeating once or twice a week for several weeks.

Metol Poisoning.—S. Blumann ("British Journal of Photography," February 10) advocates the use of the following in cases of metol poisoning:—

A. Distilled water	5iv.
Potato starch	5ij.
B. Salicylic acid	gr. x.
Pure alcohol	5i.
Glycerin	5iv.

Add B to A, then add:

Methyl salicylate	5j.
---------------------------	-----

If neuritic symptoms are evident with the cutaneous irritation also add:

Ichthol	℥x.
-----------------	-----

It is important that no grease or oil be used. The desired effect is first the production of a crisis and that is to be followed by the drying of the pustules and their rapid healing. The crisis is at its height within twenty-four hours, and the healing starts almost immediately.

Treatment of Strychnine Poisoning.—G. F. Kempf and others give details ("Journal of the American Medical Association," 100, 8, 548) of the successful treatment of ten cases of strychnine poisoning with sodium amylal and one with sodium pentobarbital. The authors point out objections to the use of morphine, apomorphine or ether. The antidote selected is given intravenously in just sufficient dose to make the patient sleep, or if in convulsions to stop them. Gastric lavage is considered unnecessary and inadvisable. Physiological solution of sodium chloride may be given intravenously, but is not necessary. The calculation of the dose for injection presents a difficulty unless one knows definitely the amount of strychnine ingested, the amount absorbed, and the weight of the patient. Ether may be used to control convulsions until a soluble barbiturate can be given. Should an intravenous preparation not be available, a barbiturate may be given by mouth in a dose not exceeding the equivalent of 15 gr. of sodium amylal for an adult.

Fatal Poisoning by Radioactive Water.—A. O. Gettler and C. Norris give particulars, illustrated by tables and blocks ("Journal of the American Medical Association," 100, 6, 400), of what is believed to be the first case on record of fatal poisoning from the consumption of water containing traces of radium salts, the presence of radium in the bones and tissues being definitely proved by laboratory procedures. Death was due to pathologic lesions brought about by the radium, which entered the system, by drinking water for a few years which was said to contain 2 micrograms of radium in every 2 oz. of water. The presence of the radium was proved by the electroscopic and the photographic method. The quantity of radium in the bones and soft tissues was determined by the emanation method. The total amount of radium in the body was 73.66 micrograms. The authors express the view that radium salts (or radioactive substances in general), when introduced into the blood stream, become detrimental to health and fatal to life, and that the use of foods or beverages containing radium salts should be prohibited.

Histamine in Pruritus.—A. C. Ernstone and B. M. Banks record ("Journal of the American Medical Association," 100, 5, 328) results obtained by the subcutaneous injection of histamine, usually in doses of 0.5

mgm. twice daily, to six patients with pruritus associated with urticaria and to seven subjects with pruritus due to other conditions. Three of the six patients with pruritus accompanying urticaria were promptly benefited by the treatment. In one of these, lasting and complete relief from itching was obtained. In the other two, complete or practically complete relief was followed by a relapse to pruritus. Subsequent treatment with histamine failed to cause improvement in one of these and was only partially effective in the other. Four of the seven patients with pruritus due to conditions other than urticaria were improved by treatment with histamine. The three patients in this group who received no benefit from the treatment with histamine had pruritus ani. Five patients were given ergotamine tartrate by mouth in doses of 1 mgm., three times daily for five days, either before or after treatment with histamine. In all, ergotamine failed to relieve the itching. The results warrant further investigation of the value of histamine in the treatment of pruritus.

Yellow Mercuric Oxide Ointment.—G. N. Hosford and J. P. McKenney review ("Journal of the American Medical Association," 100, 1, 17) the history of yellow mercuric ointment, introduced into medical practice in the 'sixties by Alexander Pagenstecher. A questionnaire was sent to ten American professors of ophthalmology in the leading medical schools of the country and to two well-known emeritus professors. The frequency of use shown was as follows:—For blepharitis, seven; for phlyctenules, three; for ulcer, two; for conjunctivitis, two; for chalazion, two; for hordeolum, two; for folliculitis, two; for corneal nebulæ, two; for last stages of interstitial keratitis, one. Of those who used it, four stressed its irritating properties. Of those who did not, one said that it was no good for any purpose; one doubted its value and almost always used something else. One eye pathologist said that his colleagues used it for all sorts of lesions but that he himself had given it up for all conditions except pediculosis. Careful search of the literature revealed no paper in English on the use of the preparation since 1866. The authors cannot see how a relatively insoluble drug, each particle of which is thickly coated with an insoluble vehicle, can diffuse into the skin, conjunctiva or tears in sufficient quantity to be of any value as an antiseptic. They doubt the wisdom of ever prescribing it for home use.

Accidental Poisoning by Sodium Fluoride.—A monograph by T. P. Sharkey and W. M. Simpson in "The Journal of the American Medical Association" (100, 2, 97) gives statistics and other details of several cases of poisoning by sodium fluoride in the United States from 1901 onwards. For example, the reports of the chief medical examiner of New York City contain records of three accidental deaths from sodium fluoride poisoning in 1918-20, two in 1925, one accidental and one suicidal death in 1926, one accidental death in 1927, three in 1928, one in 1929, and six in 1930. Sodium fluoride is widely used as an insecticide, wood preservative, food preservative and for the etching of glass. Hydrofluoric acid has caused many serious cases of fluoride poisoning, with several deaths. Sodium fluoride possesses an acrid bitter taste and is soluble 1 in 25 of water. It is a general protoplasmic poison, exerting a strong local irritant action on mucous membranes. When given in small amounts, fluorides are readily absorbed and deposited as calcium fluoride in the bones. One fatal case and seven other cases of accidental sodium fluoride poisoning occurred recently at the Miami Valley Hospital, Dayton. The fatality resulted from the accidental substitution of sodium fluoride for Epsom salts. The non-fatal cases resulted from the accidental substitution of sodium fluoride for baking powder in the preparation of biscuits. The toxic properties of sodium fluoride are not generally appreciated, largely because of the inadequate information, or misinformation, contained in text-books on toxicology. The urgent necessity for the proper labelling of sodium fluoride-containing insecticides is apparent.

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

Treatment of Burns and Scalds.—The tannic acid treatment for burns and scalds has been carried a stage further in the Hunterian lecture by P. H. Mitchiner ("Lancet," 5710, 233), who gives statistical tables of results obtained at St. Thomas's Hospital, London. From the full details of the technique given it appears that the outstanding feature is the addition of mercuric chloride in the proportion of 1 in 2,000 to the 2-per-cent. solution of tannic acid. In order to obviate the deterioration that takes place in solutions of tannic acid on keeping, the following formulas are suggested:—

Powder: Tannic acid, gr. 17½; mercuric chloride, gr. ½; to be dissolved in 2 oz. of warm water, when a 2-per-cent. solution will result.

Tablets: Tannic acid, gr. 17½; mercuric chloride, gr. ½; boric acid, gr. 1; to be dissolved in 2 oz. of warm water, when a 2-per-cent. solution will result.

An ulcer that may form in deeper burns, if extensive, should be treated by subsequent autogenous skin-grafting, or if small by the application of some lotion, of which, in the author's experience, the most satisfactory is the following: Purified alum, gr. 20; zinc sulphate, gr. 10; glycerin, 7 fl. oz.; water, to one pint. Opium is administered in preference to the use of general anaesthesia. The assistance of Mr. C. W. Peck and Mr. W. A. Woodward is acknowledged.—R. H. Aldrich, continuing work commenced by W. M. Firor, gives details ("New England Journal of Medicine," 208, 6, 299), after a review of theories of burns, of treatment of severe burning with a 1-per-cent. aqueous solution of gentian violet. Unless the burn is covered with oil or grease, there is no need for preliminary cleaning. The solution is sprayed on and the burn is left uncovered, bedclothes being supported by a cradle enclosing an electric bulb, which suffices to maintain a comfortable temperature. For a time the solution is sprayed on the area or areas every two hours; the burn is thus sealed under an impermeable cover. The necessity for constant supervision of the patient is emphasised.

OPTICS

Physiologic Exophoria in Relation to Age.—T. H. Eames ("Archives of Ophthalmology," January 1933) states that examinations of the eyes of groups of unselected school children indicated practical orthophoria in distant vision and also at the reading distance. This was at variance with the statements of a number of authorities who maintain that a certain amount of exophoria at the reading distance is physiologic. The possibility that physiologic exophoria at the reading distance might be a concomitant of age presented itself and was investigated. He concludes that physiologic exophoria increases gradually as the amplitude of accommodation decreases. It increases gradually with age; hence, any estimate of the physiologic amount of exophoria in any case must be made in relation to the age of the patient. Statements that a certain given amount of exophoria is physiologic are incorrect unless the age level is specified.

Intraocular Fluid.—C. Berens and A. Posner ("American Journal of Ophthalmology," January 1933) state that a review of the literature indicates that the few experiments which have been made on living human eyes for the purpose of proving that the optic nerve is an outflow channel for the intraocular fluid resulted in negative findings. In their experiments the eyes of living animals and human beings were used exclusively. Weed and Wegefarth's prussian blue precipitation method was employed in most of their experiments. Injections were made into the vitreous, using small quantities of an isotonic, nontoxic solution of potassium ferrocyanide and iron ammonium citrate. By fixing the eye immediately in acid formalin, the prussian blue is precipitated before postmortem changes have taken place in the tissues. Of the animals used—rabbit, dog and guinea

pig—only the rabbit furnished evidence of drainage of the intraocular fluid through the optic nerve and the posterior portion of the retina. Of the five human eyes used for the experiments, one was normal and four were pathologic. No prussian blue granules were found in the optic nerves of the pathologic eyes. In the normal eye, however, the granules were seen to be arranged around the central vessels for a distance of 1.5 mm. from the papilla twenty-four minutes after the injection.

Anterior Dialysis of the Retina.—J. R. Anderson ("British Journal of Ophthalmology," December 1932) concludes that anterior dialysis is a special form of breach of retinal continuity. It probably occurs immediately behind the ora serrata. It produces retinal detachment, in the same manner as any other retinal aperture does, by the passage through it of fluid from the vitreous. It occurs most frequently amongst relatively young patients, particularly males. The greater exposure to injury of these patients may partly explain this finding. The great majority of these patients are non-myopic. The preponderance may not be greater than that of non-myopic over myopic eyes. Other forms of retinal detachment are definitely associated with the degeneration of middle age and myopia, and appear regardless of sex. The lower retinal area and particularly the inferior temporal quadrant appears to be predisposed to dialysis. This is in marked contrast with the form of retinal aperture due to degeneration which is most frequently found in the superior temporal quadrant. A retinal detachment in a non-myopic young man if non-traumatic is nearly always due to a dialysis and lies in the inferior temporal quadrant. A detachment of later life, particularly amongst myopes, appears first as a rule in the upper temporal, less frequently in the upper nasal, quadrant. The actual cause of anterior dialysis, apart from obvious cyclitis and severe trauma, is obscure. Structural features, and particularly the attachment of the vitreous base and the "stretched" nature of the inferior temporal ciliary zone, appear to play a part in the mechanism that may produce dialysis. As a rule retinal dialyses tend to progress, particularly when situated temporally. Though the cases in this report are too few to justify decided opinions strict adherence to Gonin's principles can produce operative cures.

PHOTOGRAPHY

Some Intensification Tests.—D. Charles ("British Journal of Photography," January 6, 1933) describes tests he has conducted with intensifiers. He finds that by far the greatest degree of intensification obtained was by bleaching in the mercuric iodide bath, and by darkening in sodium sulphide solution. The next best increase was the mercuric iodide alone, followed fairly closely by chromium-pyrometol.

Reduction of Hard Negatives.—W. Hickman ("British Journal of Photography," February 3, 1933) gives a method by which the most hopeless of contrasty negatives can be reduced to sensible proportions. Take an ordinary bleaching bath of potassium bromide and potassium ferricyanide, as used in sulphide toning and thoroughly bleach the negative to be reduced. When bleaching is complete, remove from the bath and wash for about three to five minutes in running water, by which time the bleacher will have been cleared from the shadow portion of the image. The next step is to redevelop thoroughly in an M.Q. or other non-staining developer. (Do not restrain or stop development in any way.) The negative will assume a deep chocolate colour, and after a short rinse in water is ready for reduction. This is the only operation over which a watch and control must be exercised. A fairly weak solution of hypo (about 1 oz. to 20 oz. water) is required, although this can be varied for greater speed, or slower working, according to the amount of reduction necessary. The writer recommends a trial with an extremely weak hypo bath to begin with. The negative is immersed in the

THE PROGRESS OF PHARMACY AND ALLIED SCIENCES

bath for a very short period only, for reduction will commence almost instantly. On no account must the plate be left in the hypo, or the image will very soon disappear. When reduction has been carried far enough, the negative must be well washed in running water to complete the process.

Anti-Fogging Substances.—A. Seyewetz ("British Journal of Photography," January 13, 1933) has studied a number of substances as substitutes for potassium bromide. The most effective of those tested is nitroazimidobenzol, which suppresses fog completely. It should further be noted that these same compounds possess a property exhibited also by 6-nitrobenzimidazol, but not by sodium azothhydrate, namely, that of modifying the colour of the positive image obtained on chloride papers when a very little of the compound is added to the developer used for these papers.

Perpetual-Life Film Developer.—W. G. Barker ("British Journal of Photography," January 13, 1933) suggests the following developer to enable negatives to be produced from January 1 to December 31, always of one density provided that the temperature of that developer is kept at say 65° to 69° F. The first bath, with bromide therein, is:—

Negative Developer

Metol	6 oz.
Sodium sulphite (cryst.)	10 lb.
Hydroquinone	8 oz.
Sodium carbonate (cryst.)	8 lb.
Potassium bromide	3 oz.
Water, to make	20 gals.

Dissolve chemicals in above order, and never use boiling water.

Negative Bath Strengtheners

Metol	2 oz.
Sodium sulphite (cryst.)	4 lb.
Hydroquinone	2½ oz.
Sodium carbonate (cryst.)	3 lb.
Water, to make	3 gals.

Dissolve chemicals in above order, and never use boiling water.

Having made up a new bath, put through some 100 to 150 films to take some of the "fire" out of it. This formula is made up to develop in ten minutes. When, say, 100 films have been developed in the new bath, the developer is standard. The method of preserving the developer at standard strength by keeping the volume constant with additions of strengthener is explained in detail. Sludge is removed every two or three months.

VETERINARY MEDICINE

Tick-borne Fever in Sheep.—Gordon, Brownlee, Wilson and MacLeod ("Journal of Comparative Pathology and Therapeutics," December 1932) in the course of studying tick transmission of louping-ill found that there occurs in the sheep on some of the tick-infested farms of Scotland a hitherto undescribed disease. When transmitted by inoculation it is characterised by an incubation period of about four days, followed by febrile phase which lasts about ten days. The mortality incidence is low, and after recovery the animals are comparatively immune. In animals killed during the febrile stage the only pathological change observed is splenic enlargement. The infective agent is transmitted by *Ixodes ricinus* L., consequently the condition has been named "tick-borne fever."

Distemper in Dogs.—According to "Nature" (3294, 920), the inquiry into the causation and prevention of dog distemper initiated in 1922 has been brought to a successful issue by the investigations of workers associated with the "Field" Distemper Council, the Medical Research Council, and the Wellcome Foundation. The disease is due to an ultramicroscopic virus, and the

efficiency of immunological methods of prevention has been confirmed by large-scale trials on packs of foxhounds, etc. Treatment is begun by giving the dog an injection of an emulsion of material in which the virus (from the organs of an animal which has died from acute distemper) has been killed by treatment with dilute formalin. The moderate degree of resistance developed permits dosage with live virus a fortnight later, and this stimulates the animal to become definitely immune. The blood serum from such immune dogs, when mixed with live virus, may be used as a vaccinating mixture, with the practical advantage of reducing treatment to a single dose. The immunological reactions enable the disease to be identified with far greater certainty, and the new preventive methods are applicable to other animals liable to distemper.

Treatment of Mastitis.—E. M. Gildow, H. C. Hansen and V. A. Cherrington ("Journal of the American Veterinary Medical Association," January 1933) give results of attempts to control mastitis by application of ultra-violet light to the affected quarters, formalin *per os*, colloidal carbon intravenously, and autogenous bacterins subcutaneously. No consistent reduction in the number of bacteria or leucocytes in the middle milk of cows affected with subacute or chronic mastitis was obtained from either treatment. Four cows were treated by all four methods without showing significant reductions in bacteria or leucocyte counts. Of the ten cows treated with two or more of these methods, only one shows a permanent recovery, as designated by a return to a normal bacteria and leucocyte count in the milk. This cow was infected with *Streptococcus subacidus*. She was treated first with ultra-violet light in September 1930, and with autogenous bacterin in March 1931. Both the bacteria and leucocyte counts were normal following the use of autogenous bacterin and have remained so on subsequent quarterly herd tests. No conclusive statement can be made concerning the relative effectiveness of the different treatments used in so far as correction of clinical symptoms is concerned.

"Cripples" in Lambs.—W. Lyle Stewart ("Veterinary Journal," February 1933) gives a brief description of an interesting disease of lambs characterised by muscular stiffness, inability to flex the joints, and by abnormal fragility of long bones and ribs, resulting in their frequent fracture. The disease is known as "cripples," "stiffness," and also "rickets," and if uncomplicated is probably seldom fatal; but as many cases become unable to move, deaths from intercurrent disease are common, and ewes may deteriorate through improper suckling. Clinically, the affection resembles joint-ill in lambs, but there is an entire absence of sepsis, and the symptoms are probably related to imperfect osteogenesis, causing the formation of a type of bone deficient in quantity and/or abnormal in character. The farms where "cripples" has been specially noted are similar in type and pasture, while the systems of feeding and general management have been almost identical in each case. No artificial food or even hay is fed to the ewes during pregnancy. The ewes are entirely grass-fed. While cases have been noted in single lambs, the disease is commoner in one or both of twin lambs. All these grass farms have been partially improved by the use of phosphatic and nitrogenous manures, but it seems certain that this improvement, commenced fifteen to twenty years ago, is scarcely being maintained. Chemical analyses of soils and pastures from farms affected with "cripples" have shown figures low in lime and phosphorus, and there is a certain amount of evidence tending to support the view that "cripples" may be an indirect manifestation of mineral depletion of the soil. There is no evidence of gross deficiency, and the animal mechanism must be credited with the ability to adjust or compensate deficiencies within a certain range, otherwise clinical evidence of deficiency would be much more frequent.

Trade Report

Where possible scales of prices of chemicals are given for bulk down to small quantities. Prices recorded for crude drugs, essential and fixed oils and coal tar products are for fair sized wholesale quantities. Qualities of chemicals, drugs, essential and fixed oils, etc., vary, and selected brands or grades would be at higher values

28 Essex Street, W.C.2, March 23

THE general tone of the markets is quite steady and shipment conditions mostly fully support spot values. Business, however, is still limited in volume, with just a few minor articles moving off well. The slight depreciation in sterling on the dollar is somewhat unexpected and is accepted in most quarters with a certain amount of caution. Business in pharmaceutical chemicals has continued on fair lines, there always being some movement, but no great activity in any particular product. Home makers' prices for all the important salts are unchanged. Quinine salts are at the substantial reduction noted last week. The rather better feeling at last week's auction is reflected in the generally steady tone in crude drugs; while business is on the slow side, prices are keeping up well. New crop buchu looks like being firmer. Japanese menthol, although quiet, is steady. Mercury has been moving quite well. Rhubarb is a sound market. There is little to report in essential oils; business has again been none too satisfactory and price cutting is noted in not a few directions. Bergamot is again easier for shipment. Sicilian orange and lemon are cheaper for shipment of new crop, but the former is over-shadowed by the French article. Bourbon geranium, although quiet, seems to be very steady. Japanese peppermint has lost ground and business has been less, but the Japanese shipment market is steady. Business in industrial chemicals is fair and makers' prices are mostly unchanged. Fixed oils have had a moderate week. Palm oils are short on spot; linseed is steadier while American turpentine is easier.

Exchange Rates on London

THE following is a list of the chief Continental and other exchange rates at the opening on Thursday morning:—

Centre	Quoted	Par	March 23	Value of the £
Amsterdam	Fl. to £	12.107	8.50	14/0½
Berlin	Mks. to £	20.43	14.37½	14/0½
Brussels	Belga to £	35	24.59½	14/0½
Copenhagen	Kr. to £	18.159	22½	24/8½
Lisbon	Esc. to £	110	110	20/-
Madrid	Ptas. to £	25.22½	40½	32/1½
Milan	Lire to £	92.46	66½	14/5
Montreal	Dol. to £	4.86½	4.12	16/11
New York	Dol. to £	4.86½	3.42½	14/0½
Oslo	Kr. to £	18.159	19½	21/5½
Paris	Fr. to £	124.21	87½	14/0½
Prague	Kr. to £	164.25	115½	14/0½
Stockholm	Kr. to £	18.159	18.87½	20/9½
Warsaw	Zloty to £	43.38	30½	14/2½
Zurich	Fr. to £	25.2215	17½	14/0½

Bank rate 2 per cent.

Pharmaceutical Chemicals, etc.

THE general tone in this market continues quite steady, while business is fairly satisfactory. Quinine salts continue at the substantial reduction recorded last week. Citric acid is still competitive, but the market may improve in due course.

ACETANILID.—Market remains rather dull with quoted values steady: B.P. crystals and powder, 1s. 5½d. to 1s. 8d. per lb., as to quantity.

AMIDOL.—A small business is being done; market steady; 56 lb., 7s.; 28 lb., 7s. 6d.; 14 lb., 7s. 11d. per lb., in 7-lb. tins.

AMIDOPYRIN.—Dealers' spot prices vary to some extent; some limited business moving: crystals, five cwt., 17s. 9d.; two cwt., 18s.; less than two cwt., up to 19s. per lb., with powder 2½d. per lb. extra.

AMMONIUM BENZOATE.—The market is quoted at about 3s. 4d. to 3s. 6d. per lb., as to quantity.

ASPIRIN.—This market continues to attract a steady business, with makers' and dealers' prices unchanged: home trade, ten cwt., 2s. 9d.; five cwt., 2s. 10d.; one cwt., 2s. 10½d.; 28 lb., 2s. 11d.; 14 lb., 3s.; 7 lb., 3s. 2d. per lb. Export to Colonies and British Possessions: ten cwt., 2s. 9d.; five cwt., 2s. 10d.; one cwt., 2s. 10½d. per lb., f.o.b.; less than one cwt., 2s. 11d. per lb., ex works.

BARBITONE.—The demand is rather slow with dealers' prices about steady: spot, one cwt., 11s.; 56 lb., 11s. 5d.; 14 lb., 11s. 10d.; small parcels, up to 12s. 4d. per lb.

BENZOIC ACID (B.P.).—Business is about normal and the market is steady: quantities, ex works, 1s. 9½d.; spot parcels, 1s. 10d. to 2s. 1d. per lb., ex store, as to quantity.

BISMUTH SALTS.—Makers' prices for these salts continue at former rates.

BROMIDES.—A very fair inquiry is being received with makers' and dealers' prices unchanged: ammonium, not less than five cwt., 1s. 9d.; one cwt., 1s. 10d.; 28 lb., 2s. 10d.; smaller quantities, 2s. 5d. per lb.; potassium B.P. crystals and granular, not less than five cwt., 1s. 6d.; one cwt., 1s. 7d.; 28 lb., 1s. 10d.; smaller quantities, 2s. 2d. per lb.; sodium B.P., not less than five cwt., 1s. 8d.; one cwt., 1s. 9d.; 28 lb., 2s.; smaller quantities, 2s. 4d. per lb. net, without engagement. Special prices for larger quantities.

BUTYL CHLORAL HYDRATE.—The market is rather dull but is quite steady: spot, 14 lb., 8s.; 7 lb., 8s. 3d.; 1 lb., 8s. 6d. per lb., in 1 lb. bottles.

CAFFEINE.—The market is keenly competitive, particularly for large orders: pure alkaloid, 5s. to 5s. 6d. per lb.; citrate, 4s. 3d. to 4s. 8d. per lb., as to quantity.

CALCIUM LACTATE.—A steady inquiry is being received and, as quoted, the market is well maintained: spot, one cwt., 1s. 1d.; 56 lb., 1s. 1½d.; 28 lb., 1s. 2½d.; smaller quantities, up to 1s. 6d. per lb.

CHLORAL HYDRATE.—Makers' quoted prices for home trade are steady: duty paid crystals, in 14 lb. free containers, five cwt., 3s. 4d.; one cwt., 3s. 5d.; 56 lb., 3s. 6d.; 28 lb., 3s. 7d.; 14 lb., 3s. 8d. per lb., 28 lb. jars one penny per lb. extra.

CITRIC ACID (B.P. CRYSTALS).—British makers' quoted price is unchanged at 9½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers are offering spot at keen rates.

CREAM OF TARTAR.—The home trade quoted price for 99 to 100 per cent. material is steady at 82s. per cwt., less 2½ per cent. discount, nominal and without engagement. Dealers are offering spot at level figures.

CREOSOTE (B.P.).—Keen prices are quoted for bulk quantities, being in the region of 1s. 10½d. per lb., in 25 kilo. demijohns, with smaller quantities up to 2s. 4d. per lb.

ETHER (METHYLATED).—Makers' prices are as follows: s.g. 0.750, 1s. 1½d.; 0.735, 1s. 2d.; 0.730, 1s. 2d.; 0.725, 1s. 4d. per lb., in w-quarts; 12 w-quarts, halfpenny less, and packed in drums or carboys 1d. less.

FERRI QUININE CITRATE.—Makers' prices for these products continue at the reductions recorded last week.

GUAIACOL CARBONATE.—A little more inquiry; market steadier at about 8s. 10d. to 9s. 6d. per lb., as to quantity, spot; slightly dearer to come forward.

HEXAMINE.—Business is moderately good with competition for any big orders; free running crystals, spot, ten cwt., 2s. 2d.; two cwt., 2s. 2½d.; one cwt., 2s. 3d.; smaller quantities, up to 2s. 6d. per lb.

HYDROQUINONE.—The agreed scale of prices is unchanged at the amended figures reported last week: ten cwt., 5s. 7½d.; five cwt., 5s. 8½d.; two cwt., 5s. 9d.; one cwt., 5s. 9½d.; 56 lb., 5s. 10d.; 28 lb., 6s.; 14 lb., 6s. 2d.; 7 lb., 6s. 6d. per lb., carriage paid.

IODIDES.—Makers' prices for these salts continue at former rates.

LACTIC ACID (B.P.).—A moderate inquiry is being received, market steady: quantities in carboys, 1s. 5d. to 1s. 6d.; in winchesters, 1s. 7½d. to 1s. 9d. per lb., as to quantities.

METHYL SALICYLATE (B.P.).—A very fair business continues to be done, with the market fully steady: one ton and over, 1s. 4½d.; ten cwt., 1s. 5d.; five cwt., 1s. 5½d.; one cwt., 1s. 6d.; less than one cwt., 1s. 6½d.; small quantities in bottles, up to 2s. per lb.

METHYL SULPHONAL.—Dealers' spot prices are steadier and material to arrive would be slightly dearer: two cwt., 19s. 4d.; one cwt., 19s. 10d.; 56 lb., 20s. 6d.; small parcels, up to 21s. 6d. per lb.

METOL.—Prices are quoted unchanged; business is a little better: 56 lb., 9s. 3d.; 28 lb., 9s. 6d.; 14 lb., 9s. 9d.; 7 lb., 10s. 9d. per lb., in 7-lb. tins, bottles extra; wholesale distributors' prices for smaller quantities at higher prices.

MILK SUGAR.—A fair inquiry and prices for Continental material are steady: one ton, 53s. 6d.; ten cwt., 54s. 6d.; two cwt., 56s. per cwt., in two-cwt. cases.

MORPHINE.—Makers' prices are as follows:—

	Under 5 oz.	5 oz. and over assorted	For 100 oz. assorted contracts over 6 months	For 250 oz. assorted contracts over 6 months
Morphine:				
alkaloid precip. ...	oz.	oz.	oz.	oz.
meconate ...	23/2	22/1	21/7	21/1
tartrate (neutral) ...				
acetate ...				
hydrochloride powder ...	18/8	17/10	17/4	16/10
sulphate ...				

Fall clause for contracts of 100 oz. and over.

PHENACETIN.—Business has been fair on limited lines and the market is about steady as quoted: crystals or powder, ten cwt., 4s. 1½d.; five cwt., 4s. 3d.; two cwt., 4s. 4½d.; 56 lb., 4s. 6d.; less than 56 lb., 4s. 9d. per lb., carriage paid on minimum cwt. lots. No falling clause on contracts over twelve months.

PHENAZONE.—Inquiry is rather restricted and spot sellers are inclined to cut the market: crystals, ten cwt., 9s. 7d.; five cwt., 9s. 11d.; two cwt., 10s. 1½d., and less up to 11s. per lb.; with powder 2½d. per lb. extra.

PHENOLPHTHALEIN.—Controlled prices are steady, business slow: two cwt., 4s. 7d.; one cwt., 4s. 8d.; 28 lb., 4s. 11d.; 14 lb., 5s. 2d.; 7 lb., 5s. 5d.; smaller parcels, up to 5s. 8d. per lb.

PHENYL ETHYL BARBITURIC.—An occasional small business is passing on a keen market: one cwt., 36s. 9d.; 56 lb., 38s.; 28 lb., 39s. 3d.; smaller quantities, 40s. 6d. per lb., in 2-lb. bottles, carriage paid; small lots in different packing at higher prices.

POTASSIUM PERMANGANATE (B.P.).—A steady business passing, mostly in smallish quantities; market steady: quantities in two-cwt. drums, 8½d. to 8¾d.; druggists' parcels, 9d. to 10d. per lb., as to quantity.

POTASSIUM SULPHOCARBOXYLATE.—Dealers' spot prices run from 5s. 9d. for bulk lots up to 6s. 3d. per lb. for small parcels.

PYROGALLIC ACID.—Makers' prices keep steady; more inquiry on the market: 56 lb., 7s.; 28 lb., 7s. 3d.; 14 lb., 7s. 9d.; 7 lb., 8s. 6d. per lb., in 7-lb. tins.

QUININE SALTS.—Prices for these salts continue to operate at the reductions notified last week: sulphate, 1s. 9d.; salicylate, 2s. 4d.; hydrochloride, 2s. 2½d.; hydrobromide, 2s. 2½d.; bisulphate, 1s. 9d.; bihydrochloride, 2s. 5½d.; bihydrobromide, 2s. 5½d.; phosphate, 2s. 8½d.; ethyl carbonate, 2s. 4d., per oz., carriage paid on bulk quantities.

RESORCIN.—Limited spot stocks of imported are held at 5s. 8d. to 6s. per lb. English material is quoted as follows: crystals, one cwt., 4s. 11d.; 56 lb., 5s.; 28 lb., 5s. 1d.; 14 lb., 5s. 3d.; 7 lb., 5s. 6d.; less than 7 lb., 6s. per lb.

SACCHARIN.—The Convention price is steady: 550, 1 lb., 37s. 6d. per lb., duty paid, with rebates for quantities.

SALICYLIC ACID (B.P.).—Market is steady at makers' prices: one ton, 1s. 7d.; ten cwt., 1s. 7½d.; five cwt., 1s. 8d.; one cwt., 1s. 8½d.; 28 lb., 1s. 9d.; 14 lb., 1s. 10d.; 7 lb., 2s. per lb.

SALOL.—Market is dull and unsteady: spot, crystals, two cwt., 5s. 9d.; one cwt., 5s. 11d.; 56 lb., 6s.; smaller parcels, 6s. 2d. per lb.; powder, 2d. per lb. extra.

SODIUM BENZOATE (B.P.).—Market is competitive for a moderate business: bulk quantities, 1s. 8½d.; smaller parcels, from 1s. 9d. per lb., for B.P. 1932 standard.

SODIUM DIETHYLBARBITURATE.—A steady but rather slow market: spot, one cwt., 12s. 9d.; 56 lb., 13s.; 28 lb., 13s. 3d.; 14 lb., 13s. 6d.; 7 lb., 13s. 9d.; smaller parcels, up to 14s. per lb.

SODIUM SALICYLATE (B.P.).—Business is about average, with values steadily maintained: home trade, powder, two tons, 2s.; one ton, 2s. 0½d.; ten cwt., 2s. 1d.; five cwt., 2s. 2d.; one cwt., 2s. 3d.; 28 lb., 2s. 4d.; 14 lb., 2s. 6d.; 7 lb., 2s. 7d.; 1 lb., 2s. 8d. per lb., with crystals one penny per lb. extra.

SULPHONAL.—The spot market is steadier and forward would cost slightly more; business is not of much account: crystals, two cwt., 15s. 10d.; one cwt., 16s. 5d.; 56 lb., 16s. 8d.; smaller parcels, up to 17s. 3d. per lb.; with powder, 2d. per lb. extra.

STRYCHNINE SALTS.—Makers' prices are as follows:—

	Under 16 ozs.	16 ozs.	35 ozs.
	Per oz.	Per oz.	Per oz.
Pure cryst. ...	2/7	2/5½	2/5
Pure precip. ...	2/6	2/3½	2/4
Arseniate ...	2/7	2/3½	2/5
Bisulphate ...	2/1	1/11½	1/11
Hydrochloride ...	2/4	2/2½	2/2
Hypophosphite ...	4/8	4/6½	4/6
Nitrate ...	2/2	2/0½	2/—
Phosphate ...	3/—	2/10½	2/10
Sulphate ...	2/3	2/1½	2/1

25-oz. tins free. Lower prices for contracts, with rise and fall clause.

TARTARIC ACID (B.P. CRYSTALS).—The home trade price quoted by makers is steady at 10½d. per lb., less 5 per cent. discount, nominal and without engagement. Dealers are quoting about the same figures.

THEOBROMINE.—A small business only at keen prices: pure alkaloid, 5s. to 5s. 6d. per lb.; sodium salicylate, 4s. 10d. to 5s. 3d. per lb., as to quantity.

THYMOL.—Quoted prices show no further change; business is slow: synthetic, fine white, one cwt., 5s. 3d.; 56 lb., 5s. 4½d.; 28 lb., 5s. 6d.; 14 lb., 5s. 9d. per lb.; ex ajowan seed, one cwt., 7s. 3d.; 56 lb., 7s. 4½d.; 28 lb., 7s. 6d.; 14 lb., 7s. 9d. per lb.

VANILLIN.—A fair business is being done in lots of one or two cwt.; market is about steady as quoted: 100 per cent., one ton, 14s. 3d.; ten cwt., 14s. 6d.; five cwt., 14s. 9d.; three cwt., 15s.; one cwt., 15s. 3d.; 56 lb., 15s. 6d.; 28 lb., 15s. 9d.; 14 lb., 16s.; less, 16s. 3d. per lb.

Crude Drugs, etc.

ACONITE ROOT.—Spot, Napellus, 67s. 6d. per cwt.; Japanese, about 57s. 6d. per cwt.

AGAR AGAR.—The spot market is slow, quoted unchanged, shipment is fractionally cheaper: spot, Kobe, No. 1, 2s. 3d.; No. 2, 2s. 1d.; Yokohama No. 1, 2s. 1d. per lb.; shipment, Kobe No. 1, 1s. 7d.; No. 2, 1s. 5½d.; Yokohama No. 1, 1s. 5½d. per lb., c.i.f.

ANTIMONY.—Market is dull, quoted unchanged: Chinese, crude, spot, nominal; shipment, £17, c.i.f. Chinese oxide, spot, £28; shipment, £21 10s., c.i.f.

ARNICA FLOWERS.—Some spot supplies of Montana are available at 9d. per lb.

BALSAMS.—Some limited supplies of *Tolu* are now available on spot for which 3s. 6d. to 3s. 7d. per lb. is asked. Canada, spot, 3s. 2d. to 3s. 3d. per lb., as to quantity.

BELLADONNA.—Spot supplies of good test root would be about 63s. 6d. to 64s. per cwt. Leaves are offering at about 65s. per cwt. spot.

BUCHU.—The usual bale business is being done on spot with old crop leaves. Good green, 1s. 1d. to 2d.; fair to yellowish, 11d. to 9d.; ovals, 8d. to 8½d. per lb., as to quality. Shipment, although firmer, is not stable. Some business is reported to have been placed at 10½d. per b., c.i.f.; in other directions it is suggested that fair average green rounds could be secured for 9½d., while the idea for good clean green is not less than 10½d. per lb., c.i.f. Shippers have ignored some cheap bids.

CAMPOR.—There has been a little more spot inquiry, with prices steady; shipment is dull: spot, slabs, 2s. 3d.; flowers, 2s. 3d.; tablets, 2s. 8d. per lb.; shipment, slabs, 1s. 9½d.; flowers, 1s. 10d.; tablets, 2s. 1d. per lb., c.i.f. English refined is quoted unchanged: flowers, one cwt., 3s. 1d.; 28 lb., 3s. 2d.; small lots, 3s. 3d. per lb. Transparent tablets, 4 oz., 8 oz., and 16 oz., 3s. 4d.; 1 oz. and 2 oz., 3s. 5d.; ½ oz., ¾ oz. and 1 oz., 3s. 6d. per lb.; special prices for contracts for quantities.

CHAMOMILES.—The spot market appears to be in rather short supply of white flowers. Some medium to brown are available in the region of 140s. per cwt.

CLOVES.—The market has remained rather quiet; values steady and unchanged. Zanzibar, spot, 6½d.; shipment, March-April, 5½d. per lb., c.i.f.

The landings of Zanzibar in London during the week ended March 11 were 128 and the deliveries 143, leaving a stock of 1,524. From January 1 to date, landings of Zanzibar have been 918 and the deliveries 868. Landings of Madagascar for the week ended March 11 were nil, and the deliveries nil, leaving a stock of 1,112. Landings of Madagascar this year to date have been nil and the deliveries 44.

COCOA BUTTER.—Prime English is quoted from 8½d. to 10d. per lb., as to quantity. Market is quiet.

COCONUT (DESICCATED).—The market is quoted easier this week and has been rather quieter. Spot, fine, 25s. 6d.;

medium 23s. 6d.; shipment, halves, March-April, 20s. 6d. per cwt., c.i.f.

COD-LIVER OIL.—Fishing results to March 18 were as follows: 61,788 tons of cod and 38,242 hectol of oil, compared with 61,448 tons of cod and 37,113 hectol of oil at the same time in 1932 and 53,764 tons of cod and 25,419 hectol of oil in 1931. Finest Lofoten steam refined non-freezing medicinal oil, 78s. to 80s. per barrel, c.i.f. Spot, steady at 96s. to 100s. per barrel, ex store, duty paid, as to brand.

ERGOT.—There has been more inquiry for Russian, which is quoted at about 11½d. per lb. Spanish is steady at 1s. 7d. and Portuguese at 1s. 5d. per lb. spot, duty paid.

GELATIN.—A fair business in limited quantities is passing, with values unchanged: spot, gold leaf, 2s. 2d.; silver leaf, 2s.; bronze leaf, 1s. 9d.; thin leaf, 1s. 8d. per lb., in cwt. lots.

GINGER.—Market has been dull with values barely maintained. West African, spot, 18s.; for arrival, 15s. 3d. per cwt., c.i.f.

GUM ACACIA.—The market has been dull and neglected, with quoted values about unchanged.

HONEY.—The usual off-season quietness is reported here, but the market is quite steady. Some lots of Jamaican new crop have arrived on consignment although the main crop, it is reported, will be late. Some dark manufacturing is quoted on spot at 29s. per cwt. Californian white clover on spot is rather cheaper at 52s. 6d. per cwt. Some amber quality Domingo is offered at 30s. per cwt.

HYDRASTIS.—Dealers are quoting spot at about 4s. 3d. to 4s. 4d. per lb.; a little business in small quantities.

IPECACUANHA.—There is not particularly much doing in this article, but Matto Grosso is keeping up close to 4s. 9d. to 4s. 11d. per lb., as to quantity.

LIQUORICE ROOT.—Some good natural cuttings available at about 27s. 6d. per cwt.

LYCOPodium.—Cwt. lots on spot are quoted at about 3s. 3d. per kilo.

MENTHOL.—Interest has been limited this week but the shipment market is keeping steady. On spot K/S brands on Thursday were quoted at about 16s. to 16s. 3d. per lb., and slightly less for bulk quantities; shipment from Japan was maintained at 14s., c.i.f., but there were re-sellers at about 13s. 4½d. per lb., c.i.f.

MERCURY.—A steady inquiry, with business on a very fair scale. Substantial sales to America are reported. The shipment price for Spanish-Italian is well maintained at 33 dollars 50 cents per bottle, f.o.b. Continent. Spot has been fairly good for business in small lots at £9 12s. to £9 15s. per bottle, ex store.

OPium.—There has been more activity in the market this week and at unchanged prices the market is steadier. Shipment, bulk quantities, 1s. per unit, landed and duty paid. Smaller parcels from 1s. 1d. per unit.

Export sales at Istanbul for January totalled 94 cases, and for February 183 cases, compared with 186 cases for the same two months of 1932. Stocks on hand, 1,660 cases, compared with 2,400 cases at the same time last year.

PEPPER.—Business has been slow and the market is fractionally easier forward. Lampong, spot, 5½d.; shipments, March-May, 4½d.; April-June, 4½d.; May-June, 4½d. per lb., c.i.f. Tellicherry, spot, 5½d.; shipment, March-April, 40s. per cwt., c.i.f. Aleppy, spot, 5½d.; shipment, March-April, 39s. 6d. per cwt., c.i.f. White Muntok, spot, 6½d.; shipment, March-May, 5½d.; April-June, 5½d.; May-June, 5½d. per lb., c.i.f.

PIMENTO.—A better market is reported this week, with the forward position firmer. Spot, 2½d. per lb.; shipment, March-April, 22s. 6d. per cwt. c.i.f.

QUASSIA CHIPS.—Dealers are offering spot lots at about 22s. 6d. per cwt.

QUILLAIA BARK.—Crushed bark is quoted at 35s. and powder 45s. per cwt., spot.

RHUBARB.—This market is fully steady, with spot supplies restricted. Shensi, 4s. 3d. to 4s. 6d. per lb. for medium to bold round.

RUBBER.—A limited business has been done during the week and the market is a shade better, closing steady. Standard ribbed smoked sheet, spot, 2½d.; April, 2½d.; May, 2½d.; June, 2½d.; July-September, 2½d.; October-December, 2½d.; January-March, 1933, 2½d. per lb.

SAFFRON.—A steady business in small quantities, with values slightly cheaper: spot, prime B.P., 60s. 3d.; extra B.P., 56s.; super B.P., 53s. per lb., and slightly less for bulk quantities.

SARSAPARILLA.—The average small spot business is reported with prices maintained: spot, native mixed colours, 1s. 1d. to

1s. 1½d.; grey, Jamaican, 1s. 9d. to 1s. 10d. per lb., as to quantity.

SEEDS.—ANISE.—Spot, Spanish, 51s. 6d.; Bulgarian, 40s., duty paid. CANARY.—Mazagan, on spot, sold at 12s. 3d.; Tangier offering 11s.; Kenitra quoted 10s. 6d. LINSEED.—Good-quality Mazagan in demand at 15s. 6d.; Morocco quoted at 14s. 6d. CORIANDER.—Market quiet, 1929 crop unchanged, 15s. 6d.; Wormy, 13s. 6d. CUMIN.—Malta, 40s., spot; Morocco, 32s. 6d., duty paid. FENUGREEK.—Tunisian, 15s.; and Morocco, 12s., spot. CARAWAY.—Dutch, 32s., duty paid; 26s. 3d. quoted f.o.b. MUSTARD.—English, 21s. 6d. to 33s., according to quality.

SENEGA.—The tone is better and rather more inquiry is being received. Spot, 1s. 11d. to 2s.; shipment, 1s. 9½d. per lb., c.i.f.

SENA.—Some parcels of fair hand-picked Alexandrian pods have been cleared, but other grades are not in much demand. Tinnevely leaves are short in supply, particularly the finer grades. There is a fair supply of good hand-picked pods, quoted at 7d. to 7½d. per lb.; f.a.q., 4½d. to 5½d. per lb., as to quality. Shipment offers of new crop tend to be dearer.

SHELLAC.—Values show a small recovery on the week, with the market closing much steadier. Spot, standard TN orange, 52s.; fine orange, 62s. 6d. to 115s.; pure button, 65s. per cwt. For delivery, TN, May, 46s.; August, 48s. 6d. For arrival, TN, April-May, 44s. 6d. per cwt., c.i.f.

TUBA ROOT.—There has been a good demand for this article with high test powdered root at 1s. 4d. per lb.

VALERIAN ROOT.—Dealers are quoting spot supplies at about 60s. per cwt.

WAX (VARIOUS).—Quoted prices for these products are all fairly steady and unchanged. Business has been on small lines. Japanese is quiet and quoted in the region of 42s. per cwt. CARNAUBA, fatty grey and chalky grey, is steady at 87s. 6d.; medium yellow is steady at 140s.; fine yellow is unchanged at 155s. CANDELILLA steady at 75s. per cwt. SPERMACEIN steady at 9½d. per lb., spot. PARAFFIN is about steady at 22s. 6d. to 50s. per cwt. as to melting point. CERESIN is quoted from 35s. to 80s. per cwt. as to colour and melting point. BEES, has met with a fair business; supplies are restricted, market steady; bleached, discs, £7 10s.; slabs, £7 2s. 6d.; yellow refined is about steady at £5 15s.; yellow crude, 97s. 6d. per cwt. spot.

Essential Oils, etc.

BUSINESS has been routine in character and rather restricted in volume. While most shipment prices are keeping very steady the markets dealing in such products as bergamot, lemon and orange, are unsteady. Business in citronella is still disappointing.

ALMOND.—Market is steady with small business. English sweet, 2s. 7d. in cwt. lots and up to 2s. 9d. per lb. for small parcels; foreign sweet, 2s. 4d. in cwt. lots and up to 2s. 6d. per lb. for small parcels. Genuine s.a.p., 7s. per lb.

ANISE (STAR).—The spot market is subdued and unchanged; shipment is easier with silver; spot, "Red Ship," in leads, 1s. 10d.; in tins, 1s. 7½d.; in drums, 1s. 7d.; shipment, in leads, 1s. 7½d.; in tins, 1s. 6½d.; in drums, 1s. 6d. per lb., c.i.f.

BERGAMOT.—The shipment market is irregular with some low offers coming through; quoted in the region of 5s. 6d. to 5s. 10d., c.i.f. Spot is holding at about 6s. 3d. to 6s. 6d. per lb., as to quantity.

BOIS DE ROSE.—The shipment market for Brazilian is reported to be steadier in the region of 3s. 8d. per lb., c.i.f. Spot is steady from 4s. 1d. to 4s. 4d. per lb., as to quantity.

CAJUPUT.—Business has been very quiet. Spot is quoted at about 2s. 3d. to 2s. 6d. per lb., as to quantity.

CANANGA.—Spot offers are slightly cheaper, being in the region of 8s. 6d. to 8s. 8d. per lb., as to quantity; shipment, 6s. 9d. per lb., c.i.f.

CARAWAY.—A fair business moving with the market unchanged. Continental, 7s. 6d. to 7s. 9d. per lb. Dutch is quoted from 9s. 6d. to 10s. 6d. per lb., as to quantity.

CASSIA.—This market is steady and some limited business is reported. Spot, 3s. 7d.; shipment, 2s. 11d. per lb., c.i.f.

CEDARWOOD.—A fair inquiry is being received, market steady. American, in drums, 1s. 9d.; smaller quantities, 1s. 10d. to 1s. 10½d. per lb. Colonial, spot, 1s. 8½d. in drums and 1s. 10d. per lb. in tins.

CINNAMON LEAF.—The market is quite steady, but rather quiet. Spot, 3s. 1d. to 3s. 2d. per lb. in tins. Shipment, about 2s. 6d. per lb., c.i.f., in drums.

CITRONELLA.—Business is still slow, but the market shows no further alteration. Ceylon, spot, 2s. 0½d. to 2s. 1d., with supplies limited; shipment, about 1s. 9d., c.i.f. Java, spot, 2s. 8d. to 2s. 8½d., and shipment, 2s. 3½d. per lb., c.i.f.

CLOVE.—Rather less business this week but the market is steady. Madagascar, spot, 3s. 4d. to 3s. 6d. and less for bulk lots. Shipment in the region of 2s. 3d. per lb., c.i.f., English, 4s. 3d. to 4s. 6d. per lb., as to quantity.

EUCALYPTUS.—Very little inquiry, market easy as quoted. Australian, 70 to 75 per cent., 11d. to 1s.; 80 to 85 per cent., 1s. to 1s. 1d. per lb. for fair quantities; Spanish, 70 to 75 per cent., 1s. 2d. per lb.

GERANIUM.—Although actual business is still unimportant the market for genuine Bourbon is quite steady with shipment quoted at about 21s. per lb., c.i.f. Spot, about 24s. for first-class oil. Algerian, spot, 24s. 3d.; shipment, 22s. 6d. per lb., c.i.f.

GINGERGRASS.—Market is about steady as quoted for spot at 7s. 3d. to 7s. 6d. per lb., as to quantity.

JUNIPER BERRY.—There is only a small inquiry for this article. Spot, 4s. per lb. and less for bulk quantities.

LAVER.—The lower prices for the best brands of new crop French mentioned last week operate on quotation; there are sellers at a good deal less: 50 to 52 per cent., 10s. 6d. to 10s. 9d.; 40 to 42 per cent., 9s. 3d. to 9s. 6d.; 38 to 40 per cent., 8s. 6d. to 8s. 9d.; 36 to 38 per cent., 7s. 6d. to 7s. 9d.; 30 to 32 per cent., 7s. to 7s. 3d. per lb., delivered.

LEMON.—The shipment market for Sicilian new crop hand-pressed is again easier with prices now about 3s. 4d. to 3s. 8d. per lb., c.i.f., as to brand and quantity. Spot is quoted at about 3s. 10d. to 4s. 2d. per lb., as to quantity. Californian is quoted at 48 cents in large drums and 49 cents in small drums, spot.

LEMONGRASS.—Market is steadier but there is not much doing. Spot, from 2s. 2d. to 2s. 3d. per lb. Shipment, about 2s. per lb., c.i.f.

LIME.—Inquiry is very limited but spot sellers of first-class West Indian are holding for 38s. 6d. per lb. for small lots.

MANDARIN.—The spot value depends on the quality with the finest in small lots about 16s. per lb.

ORANGE.—New crop Sicilian sweet is quoted for shipment from 5s. to 5s. 8d. per lb., as to brand and quantity, with only small interest shown; spot, 6s. to 6s. 4d. per lb. The French colonial oil continues to be offered at cut rates in the region of 2s. 3d. to 2s. 6d. per lb., c.i.f., and some offers on spot at comparatively cheaper rates, but the quality is reported to be doubtful. Sicilian, bitter, for shipment, 3s. 8d. per lb., c.i.f. Californian, single cases, 50 cents; two or more cases, 45 cents per lb. spot.

PALMAROSA.—The spot market is quoted unchanged at about 7s. 6d. per lb., and less for bulk quantities. Market quiet.

PATCHOULI.—This market is again easier with spot about 7s. 6d. to 7s. 8d. per lb.; shipment, 7s. per lb., c.i.f., for quantities.

PEPPERMINT.—Interest in the Japanese product has been very limited this week; spot is steady at about 5s. 9d.; for shipment Japan continues to quote 5s. 9d., c.i.f., but there are re-sellers for January-March at about 5s. 4½d. per lb., c.i.f. American natural oil in drums is reported better in some quarters with shipment up to 1 dollar 90 cents per lb., c.i.f. American production for five States is as follows: 1929, 1,073,000 lb.; 1930, 1,103,000 lb.; 1931, 683,000 lb.; 1932, 411,000 lb. Exports: 1929, 221,561 lb. (\$795,464); 1930, 233,294 lb. (\$700,177); 1931, 229,537 lb. (\$438,202); 1932, 262,210 lb. (\$455,017).

PETITGRAIN.—Market is quiet and a little steadier. Spot, 4s. 6d. to 4s. 8d. per lb., as to quantity; shipment, 3s. 9d. per lb., c.i.f., for quantities.

ROSEMARY.—Distillation of new crop Spanish is now taking place but no prices are yet to hand. First quality on spot is steady at 1s. 8d., and smaller parcels up to 1s. 10d. per lb.

SANDALWOOD.—Genuine East Indian is steady at the official rates of 24s. to 25s. per lb., as to number of cases. There are outside sellers at less.

SASSAFRAS.—The demand is in small quantities with prices varying as to quality from about 4s. to 4s. 6d. and up to 6s. per lb. for the finest.

SPEARMINT.—Business is slow on spot with quoted values about 7s. 3d. per lb.; shipment, about 6s. 3d. per lb., c.i.f.

SPIKE.—A little business is being done in Spanish with prices at about 3s. 4d. to 3s. 5d. per lb.

WINTERGREEN.—Dealers are quoting spot from 6s. 9d. to 7s. 6d. per lb., for small quantities.

WORMSEED.—Dealers are offering spot at about 12s. 6d. per lb.; shipment is unchanged in the region of 11s. per lb., c.i.f.

Fixed Oils, etc.

Most of these products have remained rather quiet, but values are about maintained at their present low levels. There is a shortage of palm oils on spot. Linseed (raw, naked) is steady, but American turpentine is easier.—**ACID OILS.**—Market is rather easier with business quiet; coconut and/or palm kernel, 19s. 6d.; groundnut, 18s. 6d.; soya, 15s. spot. **CASTOR.**—Quoted unchanged but rather unsteady with business slow; pharmaceutical, 39s. 6d.; first pressings, 34s. 6d.; second pressings, 30s. 6d. (barrels); cases, £4 per ton extra, ex mills, Hull, in not less than one ton lots; Bombay, 28s. 6d. (drums) c.i.f. **COCONUT.**—Market is quoted unchanged; business moderate; deodorised, 28s. 6d. (barrels), spot; Ceylon, 20s. 6d. (drums) c.i.f. **COTTON.**—Prices are barely maintained at former levels; business limited; deodorised, 25s. 6d.; common edible, 24s.; soapmaking, 23s. 3d.; crude, 22s. (barrels), spot. **GROUNDNUT.**—Market is quoted easier and remains dull; deodorised, 32s. 3d. (barrels), spot; crude Oriental, 27s. 3d. (drums) c.i.f. **LINSEED (RAW, NAKED).**—A slightly better demand is reported with values well maintained; on spot, 17s.; April, 15s. 7½d.; May-August, 16s. 6d.; September-December, 17s. 3d. per lb. **OLIVE.**—Competition is keen for a limited business; edible, in tins in cases, 70s. per case of ten gallons; in barrels, 5s. 3d.; B.P., 4s. 6d. per gallon, in 40 gallon barrels. **PALM.**—Spot supplies are short and at a slight premium over shipment rates; Lagos, nominal; shipment, 15s. 3d. c.i.f.; softs, 15s. 6d.; medium, 15s. 3d.; hards, 16s. 9d.; bleached, 19s. 9d., spot. **PALM KERNEL.**—Market is steady with a small business passing; deodorised, 29s.; crude, 21s. 3d., spot. **RAPE** continues about steady; market dull; refined, 32s. 6d.; crude, 31s. 3d., spot. **RESIN.**—The market is quoted unchanged and is fairly steady; B, 12s. 6d.; D, 13s.; F/G, 14s. 6d.; N, 20s.; W/G, 22s.; W/W, 24s. 3d. per cwt., ex wharf. **SOYA.**—The spot market is rather better; deodorised, 28s.; crude, 23s. 6d., spot. **TURPENTINE, AMERICAN.**—Values are quoted cheaper and the market is dull and unsteady; total London stocks, 12,093 barrels; on spot, 62s. **WOOD.**—A fair amount of business with Hankow in barrels on spot quoted at 48s.

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1933, p. 329.

(From "The Trade Marks Journal," March 5, 1933.)

"FORCIN"; for a veterinary skin preparation (2).
"LISSADO"; for ointments (3). By The British Sanocrin Co., Ltd., 11 & 12 Harley Mews South, Wigmore Street, London, W.1. 538,916/917.

"GOMENOFORME" and "GOMENOVOULE"; for medicinal chemicals (3). By J. Prevet, 48 Rue Des Petites Ecuries, Paris. 497,680/681. (Associated.)

"CAMBIOL"; for medicinal chemicals (3) (excluding insect repelling and hair preparations). By The British Drug Houses, Ltd., 16-30 Graham Street, City Road, London, N.1. 537,136.

Portrait of the late Thomas Platt; for ointment (3). By Ethel Atkinson, 98 Peel Road, Bootle, Liverpool. 536,402.

"KEMPOIDS"; for medicinal chemicals (3). By Kempac, Ltd., Clarence Hall, Bradford Road, Batley. 538,364. (Associated.)

"THERM-O-RUB" on label design; for a medicated ointment (3). By Carter Bros., 45 Valley Road, Shipley. 535,798.

"MAXONA"; for medicinal chemicals (3). By J. McMyn, 3 Sudell Cross, Blackburn. 537,217.

"COPPEREX"; for malt extract (42). By E. Fison, Ltd., Stoke Bridge Maltings, Dock Street, Ipswich. 539,033.

"GOLYTE"; for powder substitute for shaving soap (48). By E. W. Lucas, 27 Park Hill, Ealing, W.5. 538,619.

"MASSEC"; for perfumery, etc. (48). By O. G. Roura, 18 Rue des Pyramides, Paris. 538,983.

"HYADOX"; for toothpaste (48). By L. L. Elliott, 98 Tennis Court Drive, Humberstone, Leicester. 539,068.

"AMOROSO"; for perfumes (48). By C. W. Rettig, 152 Fleet Street, London, E.C.4. 539,088.

APPLICATION AMENDMENT

According to "The Trade Marks Journal" of March 15, 1933, "PILOT" with design in Class 3, No. 534,829, by Beiersdorf, Ltd., is amended to exclude medicated soap.

Japan's International Trade, 1931-32

THE thirty-second Financial and Economic Annual Report of Japan gives the following particulars and statistics of the imports and exports of chemicals, drugs, etc., for the fiscal year April 1931 to March 1932. The total number of operatives engaged in the manufacture of drugs, medicines and chemicals in 1932 was 20,860; in dyestuffs, paints, etc., 5,693; in soaps and toilet articles, 6,219; in explosives, 1,855; in oils, fats, camphor and waxes, 7,824; in rubber and celluloid manufactures, 30,738; in fertilisers, 12,062; and miscellaneous, 28,444.

The number of factories producing drugs, medicines and chemicals was 546; dyestuffs, paints, etc., 241; soaps and toilet articles, 200; explosives, 39; oils, fats, camphor and waxes, 250; rubber and celluloid manufactures, 717; fertilisers, 248; miscellaneous, 567. The capital values of these undertakings is not stated in the report.

Crude Camphor and Camphor Oil

The following table gives the production for the fiscal years 1922 to 1932 inclusive. These figures do not include the production for Taiwan:—

Fiscal Year	Crude Camphor		Oil of Crude Camphor	
	Quantity	Value	Quantity	Value
	Kilos	Yen	Kilos	Yen
1922-23 ...	847,768	1,912,349	657,425	650,939
1923-24 ...	750,983	1,679,212	760,208	752,008
1924-25 ...	1,601,352	3,601,030	1,487,711	1,487,460
1925-26 ...	1,177,935	2,625,980	2,042,718	2,020,838
1926-27 ...	943,001	1,961,566	1,684,102	1,560,451
1927-28 ...	730,269	1,119,007	1,269,829	871,429
1928-29 ...	651,255	892,983	1,095,977	671,874
1929-30 ...	864,844	1,183,944	1,418,522	868,809
1930-31 ...	1,291,207	1,693,870	2,070,208	1,250,721
1931-32 ...	821,617	964,906	1,327,408	760,964

Camphor and Menthol Crystals Exports

The following table gives the total exports of camphor and menthol crystals; these figures do not include the exports shipped from Taiwan.

Year	Camphor	Menthol Crystals
	Yen	Yen
1922 ...	7,246,755	3,322,906
1923 ...	8,877,555	3,454,274
1924 ...	6,918,033	7,812,741
1925 ...	7,275,712	12,478,212
1926 ...	5,742,167	10,049,475
1927 ...	5,637,732	4,897,628
1928 ...	5,447,522	3,914,516
1929 ...	6,199,449	5,170,250
1930 ...	3,109,356	3,475,261
1931 ...	2,944,609	2,984,283

Exports of Camphor from Taiwan

The report gives the following particulars of exports of camphor shipped from Taiwan during the years 1922-31.

Year	Yen	Year	Yen
1922 ...	4,417,977	1927 ...	1,895,106
1923 ...	3,305,224	1928 ...	3,215,765
1924 ...	2,636,514	1929 ...	1,653,301
1925 ...	3,609,366	1930 ...	1,085,348
1926 ...	1,949,291	1931 ...	1,586,448

Values of Exports and Imports

The value of drugs, chemicals, medicines, pigments, etc., exported during 1931 was yen 26,299,406, compared with yen 34,643,645 in 1930, yen 39,925,983 in 1929 and yen 44,024,102 in 1928. Exports of oils, fats, waxes and similar products during 1931 totalled yen 13,609,887, compared with yen 30,110,005 in 1930. The total value of drugs, chemicals, medicines and explosives imported during 1931 was yen 81,614,137, compared with yen 106,231,165 in 1930 and yen 161,770,466, in 1929. Imports of dyes, pigments, filling materials, etc., in 1931 totalled yen 14,881,219, compared with yen 14,798,031 in 1930 and yen 21,442,086 in 1929. Imports of oils, fats, waxes, etc., during 1931 totalled yen 97,839,830, compared with yen 104,446,185 in 1930 and yen 111,823,363 in 1929. The report does not furnish figures of production or exports of peppermint oil.

Canadian Chemical Industry—1931 Production

FINAL figures for 1931, published by the Minister of Trade and Commerce, show that the production of chemicals and allied products was valued at \$105,501,905 at factory prices. This total was 12 per cent. below the corresponding value of \$119,969,637 for 1930 and 24 per cent. below the 1929 total of \$138,545,221, which was the record for this group of industries. A total of 621 plants operated in 1931 as compared with 591 in 1930, but the capital employed was lower at \$164,510,279 as compared with \$168,119,152 in 1930, and the number of workers fell to 15,207 from 15,503. The cost of materials declined to \$40,756,550 from \$48,165,038 and the net value of products or value added by manufacturing dropped to \$64,745,355 from \$71,804,599 in 1930.

The fertilisers industry increased to \$4,251,840 from \$2,504,573; toilet preparations rose to \$5,946,292 from \$4,206,513; medicinals and pharmaceuticals advanced to \$18,110,794 from \$17,768,806. The greatest decline was in the acids, alkalis and salts industry, with the 1931 production reported at \$10,952,497, as compared with \$20,111,602 in 1930. The paint industry, which is the most important of the group from a value standpoint, dropped 23 per cent. to \$18,536,463; the soaps and washing compounds industry fell 6 per cent. to \$17,047,452; compressed gases, 21 per cent. to \$2,818,306; coal tar products, 23 per cent. to \$2,576,102; inks, 10 per cent. to \$2,309,062; flavouring extracts, 7 per cent. to \$1,434,031; wood distillation, 40 per cent. to \$700,937. Statistics for the principal groups are as follows:—

Industries	Capital Employed	Cost of Materials at Works	Selling Value of Products at Works.
	\$	\$	\$
Coal tar distillation ...	5,013,678	1,850,751	2,576,102
Acids, alkalis and salts	44,994,828	2,407,682	10,952,497
Compressed gases ...	4,597,170	429,048	2,818,306
Fertilisers ...	15,615,119	3,053,016	4,251,840
Medicinals and pharmaceuticals ...	17,848,713	5,590,546	18,110,794
Paints, pigments and varnishes ...	24,985,476	7,974,852	18,536,463
Soaps and washing compounds ...	15,322,398	7,990,246	17,047,452
Toilet preparations ...	4,564,109	1,987,231	5,946,292
Inks ...	2,319,662	762,112	2,309,062
Wood distillation ...	1,644,073	379,147	700,937
Adhesives ...	3,497,714	877,802	1,742,553
Flavouring extracts ...	1,389,683	778,172	1,434,031
Polishes and dressings	1,966,126	665,302	1,783,549
Miscellaneous ...	20,751,530	6,010,643	17,292,027
Total ...	164,510,279	40,756,550	105,501,905

Correspondence

Letters should be written on one side of the paper only. Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor

Pharmacy and Poisons Bill

SIR,—I have carefully read the Pharmacy and Poisons Bill printed in the *C. & D.* of March 11. I can find no justification for any of it. For instance, what unbiased mind thinks the public will benefit by being able to obtain poisons more easily—things they seldom use, much more rarely need, and probably never use properly? Still, whilst there is nothing good or called for in it, there is nothing particularly bad, except that the Pharmaceutical Society stands to make a great deal of money out of it. This I consider makes the Bill nauseating and contemptible. There is perhaps no strong objection to a retention fee, but if it can be justified it should be only a nominal one, 5s. at the outside; emphatically there should be no exemptions, and each should pay the same amount. Clause 1 (3) is offensive and should be deleted peremptorily. Why the registration fee, and why £3? The Society has already ample inspectors, and should carry out the slight extra work necessary without extra cost. If the registration is desired, the fees should be quite nominal; 5s. from each of us would fully cover all reasonable expenses. Another uninvited question is: Why are not the premises used for wholesale sale of drugs to be registered? Recalling the way the Society distinguished itself over the D.D.A., N.H.I. terms, K.A.A. remedies, and now this Bill, it would be very adequately paid for its services to its members in retail business if it made us all honorary as regards membership, retention, registration and everything else. Is it possible that the Council has been so obsessed by this dream of wealth as to lose sight of all side-issues, including fairness to the man that they intend shall pay? If so, what will happen if Part II is so drawn up as to admit all but D.D.A. dispensing, and the intended victim passes unscathed to another camp and is joined by the drug-store keeper who knows his business—Army or otherwise well trained?—Yours, etc.,
London, S.W.16. H. AMON.

SIR,—The Pharmacy and Poisons Bill is again giving the retail chemist food for thought. It is quite time the thinking pharmacist said "We will have none of this." One is struck by the number of times payment of fees for this, that and the other is mentioned in the Bill—which I gather is the real purport of the Bill. We are told by the powers that be that it will raise our status. We know this is eyewash; we have been told these things before. I suggest that, as we are supposed to be a body of professional men who are not only trusted with the compounding of the medicine of the nation but also with the protection of the public as regards the sale of poisons, it is an insult to our intelligence to try to foist this Bill on us, as we have carried out our trust faithfully. We are too inspector-ridden already, and I can picture what it will be if this Bill becomes law; this extra lot will be trying to justify their jobs at the expense of the already harassed and underpaid chemist. If the Pharmaceutical Society are really out to raise our status, why do they not tackle the problem of why a qualified chemist gets the wages of an average dustman, and why in hospital life he is always sought for his information but his status is about on the same plane as that of a probationer nurse? If one notices the way the Pharmaceutical Society have tackled this problem, it has been a question of giving way all the time; and I think it augurs a failure of their vaunted increase of status.—Yours faithfully,

OBVIOUS (20/3).

SIR,—A year or so ago I wrote you on this subject, asking if the effect of the new Act would be to increase the work of the chemist very considerably in handling the sale of small quantities of practically harmless poisons

in fairly frequent use. As far as I remember, no reply was made in any shape or form. The new law appears to be likely to come into being at an early date. What is to be our position? Apparently the whole of the Part I poisons, together with practically all Part II poisons, will compose Part I of the Poisons List; thus the sale of two-pennyworth of paregoric and a pennyworth of laudanum together with the usual oils will come under the same heading as hydrocyanic acid, in which case I presume that we can regard such transactions as things of the past, as we certainly cannot be expected to know all of our customers sufficiently well to act as witnesses on their behalf in the poison-register—in addition to which, the expenditure of time will be prohibitive. There is very little doubt that practically every chemist in business is opposed to the Bill as much for the sake of the public as for that of himself. It is designed to make it most difficult for patients to get the relief they desire, but very much easier than before for them to obtain the kind of poison which has caused so many deaths in the past, both from accident and design. There will be every opportunity for the public to get their supplies from the milkman, the off-licence holder—or the undertaker! Would the coroner's officer be granted a licence for poisons? If so, he could keep himself busy; but, probably, he will be when the new Act comes in.—I am, etc.,

A KENTISH CHEMIST (21/3).

Joseph Priestley

SIR,—I read with great interest Mr. E. A. Lum's letter on Joseph Priestley in the *C. & D.* of March 11 (p. 277), but I must beg a few inches of your space to ask for some facts in support of his opening statement, viz., "The religious ministry has not, as a rule, produced great scientists, and perhaps the most notable of the few pastors who have so developed was Joseph Priestley." . . . It is to the alchemists of the Middle Ages that we owe most of the appliances still used in the laboratories, and of these alchemists quite a number were eminent churchmen. Albertus Magnus, a Dominican of the thirteenth century, was in his day in the front rank as a teacher of physics, botany and chemistry. One of his pupils, St. Thomas Aquinas, defined the law of indestructibility of matter at the University of Paris towards the end of the thirteenth century. He said, "Nothing at all is ever reduced to nothingness." Raymond Lully, a Spanish Franciscan, gave us carbonate of potash and was the first to rectify spirits of wine. Later on Basil Valentine, a German Benedictine, and one of the greatest of the alchemists, introduced qualitative analysis to the study of chemistry. . . . Unprejudiced historians pay tribute to the work of the Abbé Spallanzani, who prepared the way for Pasteur; to Michael Francis O'Reilly, known in religion as Brother Potamian, who was on terms of intimacy with the great scientists of his day in England, including Lord Kelvin, Mivart and Tyndall; to George Mary Searle, a Paulist father and one of the leading astronomers of our time. . . . If your correspondent is interested in the matter of the Church's contribution to science he should read "The Popes and Science" by Dr. James J. Walsh, the celebrated author and historian. "The British Medical Journal" has praised this work very highly. Two works by Sir Bertram Windle—"Church and Science" and "The Catholic Church and its Reactions to Science"—will also help to dispel the fog of misunderstanding, and another work of interest is a little book entitled "Catholic Science and Catholic Scientists" by Professor J. A. Zahm, sometime Professor of Physics at the University of Notre Dame.

Yours truly,

J. A. O'ROURKE, M.C.P.S.I.

Dun Laoghaire.

SIR,—Joseph Priestley was made the subject of interesting observations by two of your correspondents on March 11; those have led me to refer to records of his chemical work, which confirm Mr. Lum's remark that Priestley's fame rests chiefly upon his share in the discovery of oxygen. His work in that direction was vitiated, like that of Scheele and Cavendish, by belief in the phlogiston theory; but, though that belief hindered his full comprehension of the phenomena observed during his labours, the fact remains that they did much to prepare the way for Lavoisier, who carried the results to a logical conclusion. It was the observations of Priestley and Scheele with respect to what they knew as "dephlogisticated air" which enabled Lavoisier to establish his theory of combustion or oxidation, according to which substances burn only in the presence of oxygen and increase in weight proportionately to the amount of that element consumed in the process. Since Cavendish had already shown that water alone is produced by the combustion of hydrogen, Lavoisier was thus able to state the real combustion of water. In this and other ways he was enabled to translate into simple antiphlogistic language the obscure and erroneous reactions in which phlogiston was assumed, and it is not too much to claim that the foundations of modern chemistry were provided by the joint labours of Scheele, Cavendish, Lavoisier and—not the least—Joseph Priestley. In spite of his undoubted lack of system, Priestley not only discovered oxygen, but anticipated much of what we now know regarding it. Thus, he inferred that the introduction of a quantity of "dephlogisticated air" into a room "in which much company should be confined" would agreeably qualify the noxious air of the room. He also pointed out that "though pure dephlogisticated air might be very useful as a *medicine*, it might not be so proper for us in the usual healthy state of the body; for, as a candle burns out much faster in dephlogisticated than in common air, so we might, as may be said, *live out too fast*, and the animal powers be too soon exhausted in this pure kind of air."

Yours, etc.,

PHARMACEUTIST (21/3).

Unwanted Suggestions

SIR,—Mr. G. B. Robinson (*C. & D.*, March 4, p. 245) asks if the young men have no suggestions to make. Plenty, but I think most of them recognise that suggestions by young men are not wanted, and there is no sense in breaking one's head against the wall of established system. As Mr. Robinson says, wherever two chemists get together ideas are put forward and discussed; some time ago I made notes of several ideas which had been discussed in this way, and took the opportunity of a discussion at a local meeting to propound them. One after another the authorities on the platform poured cold water on my small collection of ideas from the younger generation; this one was too advanced, that one had been tried and found wanting, one was too revolutionary, another came up against the accepted order, and the times were not opportune for something else. In short, we were living in the best possible pharmaceutical world as arranged and manipulated by our elders.

Faithfully yours,

YOUNGUN (13/3).

Penny Articles

SIR,—In a recent "Retrospect of Fifty Years Ago" (*C. & D.*, February 25, p. 216) you reproduce a letter complaining of the tendency of chemists to feature penny lines. Are we getting back to the same kind of trading at the present time? The reason I ask is because of late I have had customers for pennyworths of all kinds of drugs, and the way they come in with their inquiries compels me to think they must have been purchasing "penn'orths" of these lines elsewhere. I know we have got back to penny pills and penny ointments for some time now, but penny glycerin suppositories and penny packets of quinine seem to me to be very unprofitable transactions. In the proprietary lines, with the rush of the manufacturers to capture the bazaar trade, I had thought that the sixpenny line would become the stabilised minimum pack; but the threepenny sample

tin of face cream or box of powder is now more euphemistically called "the handbag size," and is becoming the regular seller to the elimination of the larger sizes. And we are now threatened with the complete threepenny series, brilliantines, shaving sticks, setting lotions, and so forth; what can customers expect to get for their money after the retailer's and wholesaler's profit has been allowed for, and the cost of bottles and packs? In pre-war days penny lines might possibly have meant profitable business if the turnover was large enough, but with post-war overheads these small lines cannot pay.

Faithfully yours,

THRUMMER (6/3).

SIR,—It is, unfortunately, true that in many pharmacies to-day penny lines have returned; they were discontinued during the war. Those of us who served our apprenticeships in the 'eighties and 'nineties remember the range of penny ointments, penny pills and penny packets of such goods as Epsom salts, senna leaves, fuller's earth, violet powder, etc. I remember attending a meeting of a local association in 1912 or 1913 to discuss the action of a member who persisted in giving four Beechams pills for a penny when his brethren gave three. He agreed at last to come into line, and then we sat down to tea, after a good afternoon's work! It does not pay to sell pennyworths (nor, indeed, threepennyworths). I make a minimum charge of 3d. for anything I sell; it should be 6d. Wholesale drug houses make their minimum charge 6d.; they argue, I understand, that each job, whether putting up a "wet" or a "dry," costs them 3d. for labour, packing, overheads, etc., leaving 3d. for the article itself. It is unfortunate that pharmacists as a class have so little idea of what their costs are—I allude to the cost of overheads, etc.

Yours, etc.,

COUNTRY CHEMIST (8/3).

To What Purpose?

SIR,—Congratulations may be extended to Mr. Brindle for his choice of a subject for his address on p. 227 of the *C. & D.* of March 4, and it may be taken for granted that only a few pedants will disagree with him in the axiom that education must be the basis of any life-vocation, of either a specific or a general type. The next step, however, is not so easy, for at this phase there commences the imposition of practical tests and the diminution of academic values. The question of a retail pharmacist making his own galenicals in small quantities in competition with the manufacturer operating upon large quantities cannot be solved as a matter of financial economy except in favour of the latter. Can any retail pharmacist make a winchester of tinct. camph. co. as economically as the wholesaler operating upon 200 or 300 gallons at a time, or a few pounds of chemical food against a ton or two? And he need not have a moment's anxiety about the quality of the supplies delivered to him from the manufacturer. The thorny question "Does dispensing pay?" is raised by the statement respecting pharmacists sending difficult prescriptions to be dispensed by the wholesaler. Mr. Brindle is not faced with the perplexities of the dispensing counter as it affects the ordinary pharmacist, burdened with surplus dispensing stock which is unsaleable in the ordinary course. The basic difficulty is that light skilled labour is badly paid as labour, and dispensing, unfortunately, comes within this economic application.—Yours, etc.,

NORTHERNER (7/3).

Photographic Film Prices

SIR,—In his letter in the *C. & D.*, March 11, p. 276, Mr. Wallace Heaton refers to the eight-exposure vest-pocket size films, and this reminds me that the advanced prices only refer to the 16 and 20 sizes. Presumably the increased and uneconomical cost of manufacture does not affect the vest-pocket size, which still sells at rs., of the quarter-plate and other less frequently sold spoils, but only the two most popular and ready sellers.

Yours faithfully,

OUTSIZE (18/3).

Dispensing Notes and Difficulties

Colour Problem

SIR,—Difficulty was experienced in dispensing the following mixture. Colour was lost and a deposit formed when the tr. cardam. co. was added to weak or strong solutions of sodii bicarb., but more so with the weak solution:—

Liq. trinitrini	..	..	3ss.
Sodii bicarb.	..	..	3iv.
Tinct. cardam. co.	..	..	3iv.
Aquam	..	ad	3xij.

Yours faithfully,

W. F. G. (16/11).

[The liq. trinitrini appears to have no effect in any way. Tr. cardam. co., added to tap water (London), is almost decolorised and yields a bulky precipitate. With distilled water it gives no precipitate and no loss of colour. With distilled water and sodii bicarb. it loses 30 per cent. of its colour and gives a bulky precipitate. The trouble is unavoidable with tr. cardam. co. in an alkaline mixture. The difficulty was discussed at the British Pharmaceutical Conference held at Leicester in 1926 (*C. & D.*, 1926, II, p. 244), much consideration being given to buffering the solutions with sodium phosphate to a PH. of 7. When dispensing this mixture you are not permitted to add sodium phosphate, and in our own experiments no valuable help is obtained by so doing. We find that only 30 per cent. of the colour is lost when kept in sunlight, or daylight, in a three-quarter filled bottle. The precipitate is unsightly, but it invariably takes place. The additional label "Shake the Bottle" is necessary.]

Subscribers' Symposium

For interchange of opinion among "C. & D." readers and brief notes on business and practical topics

Cheap Dispensing

I am expected to make 60 pills, after translating a foreign prescription into English, for 1s. 6d. The ingredients are ferri cit., ext. nucis vom., ext. cinchonæ, ext. gentianæ, ext. rhei. Pricing by the costing method as given in the *C. & D.* Retail and Dispensing Price List, I consider that 3s. 3d. or 3s. 6d. is about correct.—*W. W.* (22/2).

Percentage Profit

"Common Sense" (*C. & D.*, March 4, p. 246) appeals to manufacturers to cease advertising profits on a percentage basis. If this is asking too much, would they at least refrain from calculating profits on cost? I recently received, from a druggists' sundries house of repute, a circular advertising face cloths, in which I was informed that if I sold them at three for 1s. I should make 50 per cent. profit; or, if I sold them at 6d. each, 125 per cent. profit.—*Bernard W. Gill*, Nottingham.

Are Chemists Hopeless?

Mr. G. Julius Caesar takes the title of his article "Chemists are Hopeless" (*C. & D.*, February 11, p. 152). They are, and so am I—hopeless that there will ever be any real co-operation between members of the craft to improve their status. That leads me to ask whether Mr. Caesar could not add a third side of the picture, as he must have had some experience of the principal causes of the trouble he complains of. The local association was defunct; we then had the branches (business matters taboo) and meetings used to overlap so that the old associations have gradually died out, with one or two notable exceptions. One man spoke about out-of-date foods. I have grown so tired in the past of the constant trouble of watching these dates and sending the tins back for exchange, because I only had sales when it was inconvenient for the customers to go to the "welfare," that now I only stock one leading line and have discontinued all the others. I am still waiting for the clinic to send me a customer. Where do they get their foods?—*Also Hopeless* (22/2).

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

Verax (2/28).—GAPES IN POULTRY.—A small quantity of the ingredients in the recipe for gapes in poultry is probably intended for the birds' drinking water. As the gape worms are inhabitants of the respiratory tract, it is usual to administer any remedy direct into the passages by means of a feather into the larynx, or by fumigation in closed coops, or by what may be termed "sneezing powders," which are stirred up in various ways in the atmosphere. Whatever method is employed it is necessary that the agent should be either a light powder, such as pyrethrum in a fine state of subdivision, or a volatile substance, in order that the deepest recesses of the lungs can be reached. The recipe suggested does not fulfil any of these conditions, all the ingredients being heavy and not volatile. If introduced into the larynx or trachea they would not be without danger to the birds. If in the form of a solution or suspension of such a dilution as to be non-injurious, they would be useless as expellers of the parasites. As a remedy given by the mouth or in the food they would be valueless, as are all such medicaments. Treatment should be preventive. Affected birds should be destroyed forthwith, and the others removed to clean ground, that is ground that has not been run over by diseased birds, for it must not be forgotten that the earth worm plays an important part in the life-history of gape worms. Coops and houses should be thoroughly disinfected.

H. J. S. (29/28).—COLD WATER ADHESIVE.—The following formula gives the type of preparation which we think you require:—

Casein	..	..	100
Calcium hydroxide	..	..	7.5 gm.
Sodium carbonate	..	..	0.2 gm.

For use add 1 part of the powder to 3 parts of water.

A. J. B. (28/2).—DOG CONDITION AND TONIC POWDER.—This is a yellowish brown powder containing many ingredients. So far it has been found that the ash amounts to 33 per cent. and that this contains iron and phosphorus as the chief elements. Other elements include calcium, sodium and magnesium in small quantities, significant of a vegetable ash, although no vegetable structures are present. Phenolphthalein was found, and also much sugar, but no starch. Small quantities of sulphur and nitrogen compounds appear to be present.

Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," March 15, 1883

Pharmacy in India

It may seem at first an odd place for a pharmacy, perched on the brow of a mountain 6,000 feet high; but here I find one of our fellow craftsmen doing a most thriving business. From the windows, door and corridors of this large and pleasant establishment, and from the open space by the side of it, there is, I think, as fine a view as can be had from any pharmacy throughout the world. . . . Strangers, unfamiliar with the grand style of the European business buildings of India, might easily mistake Mr. Lyell's chemist's shop for the Town Hall, or the residence of His Excellency the Governor. There are several retail and dispensing drug establishments in India which are much larger than any in England, and the chemists of India are among her most enterprising and successful business men. Instead of being encroached upon by people in other lines of business they are often themselves the aggressors, and when not busy with prescriptions seem to be looking up some profitable line to add to the business. [From a letter by the head of a well-known firm of manufacturing chemists.]

NATIONAL DRUG INDUSTRIES LIMITED

INCORPORATING C. R. HARKER, STAGG & MORGAN

THOS. HODGKINSON, PRESTONS & KING

RETAIL PHARMACISTS SUPPLY ASSOCIATION LTD.

HAYNES FINEMORE & COMPANY

BARTLETT HOOPER & COMPANY

PHARMACEUTICAL
MEDICINAL AND
TOILET PREPARATIONS
MANUFACTURED
AND PACKED

SENNA NATIONAL CAMPAIGN

Let us quote for your re-
quirements, and submit
samples

All varieties in stock

OUR LATEST PRODUCT

'HALIBYN'

Reg. Brand

FINEST MALT EXTRACT
combined with

HALIBUT LIVER OIL

Absolutely free from any taste or
smell of fish.

Doctors are prescribing HALIBUT
LIVER OIL for invalids and children.

'Halibyn' contains Vitamins A, D
and B. Shows good profits and sells
at popular prices.

Send for quotation and sample

KEEN PRICES
FINEST QUALITY

*Visit our Showrooms and
inspect them yourself*

General Offices and Works :

Emmott Street, Mile End, London, E.1.

East 4307 (6 lines) Galenicals, Edo, London.

Registered Office and Showrooms :

P. & O. House, Cockspur Street, London, S.W.1.

Whitehall 4558 (4 lines)

STURGE CHEMICALS

CITRIC ACID

CITRATE of POTASH
CITRATE of SODA

FERRI et AMMON
CIT.

BICARBONATE of POTASH

CARBONATE of POTASH

PRECIPITATED CHALK

CALC. CARB. PRECIP.
for Dentifrice Pastes, &c.



ESTD. 1823.

ROCHELLE SALTS

PULV.

SEIDLITZ

TARTRATE of SODA
TARTRATE of POTASH

JOHN & E. STURGE, Ltd. WHEELLEY'S LANE
BIRMINGHAM

Agents:
H. J. BAKER & BRO. NEW YORK
C. REINBOLD & CIE., 10 Rue Perree, PARIS

Cables: "STURGEON, BIRMINGHAM"
Codes: A.B.C. 6th Edition, BENTLEY'S
and LOMBARD

STERLING -BRAND- CHEMICALS

SCALE PREPARATIONS
HYPOPHOSPHITES
BISMUTH SALTS
MERCURIALS
STEARATES
CITRATES
ACIDS
ETC.

THOS. TYRER

& CO., LTD.
STRATFORD
LONDON, E.15

WE do not supply "packed goods"
but specialise in bulk supplies for
Wholesale packers and chemists who
pack their own specialities, and invite
enquiries for such lines as

Raspberry Vinegar
Shampoos
Disinfectants
Laxative Fruit Elixir
Composition Essence
Petroleum Emulsion
with Agar Agar
Etc., etc., etc.

Samples upon application.

J. C. ARNFIELD & SONS
LIMITED,

Wholesale and Export Druggists,
Gadsby Works - - STOCKPORT
ESTABLISHED 1786.

Telegrams: "Chemicals"

Telephone: 4601 (2 lines)

- ALOIN _____
- CHRYSAROBIN _____
- QUININE _____
- PODOPHYLLIN _____
- SANTONIN _____
- STRYCHNINE _____

ACETYSALICYLIC ACID
AMIDOPYRIN
BARBITONE
CAFFEINE
EPHEDRINE
GUAIACOL CARBONATE
IODIDES
JALAP RESIN
MENTHOL
PHENACETIN
PHENAZONE
PHENOBARBITONE
SALICYLATES
SALOL
SCAMMONY RESIN
ETC.



CARNEGIE BROS. LTD.,

MANUFACTURING CHEMISTS

227-229 ESSEX RD., LONDON, N.1

SPECIFY

**CARNEBROS
BRAND**



PHONE

CLISSOLD 4761—4 LINES

TELEGRAPHIC ADDRESS

CARNEBROS, LONDON

CODES

ABC-5th and 6th EDITIONS, ETC.

SOLAZZI

Liquorice Juice

The Chemist's Brand.

Should any enquiries as to the composition of SOLAZZI be received from the Public, Chemists are requested to emphasise the fact that SOLAZZI is not included in the category of Secret Remedies, and that the following guarantee obtains with every parcel.

Solazzi Juice is

guaranteed to consist entirely of the condensed extract of finest Calabrian Liquorice Root, without any admixture whatever



"CREMAG"

CREAM OF MAGNESIA

(MIST. MAGNES. HYDROX. B.P. U.S.P.)

An Antacid Emulsion in almost perfect suspension produced by the "Pattinson" method and therefore free from Alkali and Salts. Packed for the Wholesale Trade. Write for 12-oz. free sample bottle to the Sole Manufacturers:

THE WASHINGTON CHEMICAL CO.

BRANCH OF TURNER & NEWALL, LTD.

WASHINGTON STN., CO. DURHAM



PHARMACEUTICAL PRODUCTS

issued under the following Trade Marks or Brands in Original Packings as under:

'COMPRAL'

gr. $7\frac{1}{2}$ (0.5g.) tablets in tubes of 10 and bottles of 50 and 250.

'ADALIN'

Cartons, $\frac{1}{2}$ -1 oz. Tablets, gr. 5, bottles of 25 and 100; gr. $7\frac{1}{2}$, tubes of 10.

'NOVALGIN'

Bottles of $\frac{1}{2}$ -1 oz. Tablets, gr. 5, bottles of 25, 100 and 500.

'ELITYRAN'

gr. $\frac{2}{5}$ (0.025g.) in tubes of 30, and bottles of 250.

'PHANODORM'

gr. 3 tablets, tubes of 10 and bottles of 50 and 250.

'PYRAMIDON'

The Original Product.
Cartons, $\frac{1}{2}$ -1 oz. Tablets, gr. $1\frac{1}{2}$ and 5.

'THEOMINAL'

Tablets in tubes of 20 and bottles of 50 and 250.

'LUMINAL' and 'LUMINAL' SODIUM

The Original Product.
Cartons and bottles of $\frac{1}{2}$ -1 oz. Tablets, gr. $\frac{1}{4}$ to 5.

'LACARNOL'

In drop bottles of 20 c.c. and 125 c.c. Boxes of 5×1 c.c. ampoules.

PRICE LIST ON REQUEST FROM

BAYER PRODUCTS Ltd., 19 St. Dunstan's Hill, London, E.C.3

EPSOM SALTS

Commercial and B.P. Qualities also Powdered

Glauber's Salt

Commercial and B.P. Qualities and Desiccated

Zinc Sulphate

Commercial and B.P. Qualities

Zinc Chloride

Fused, Granulated and Liquid



Hyposulphite

of Soda Pea Crystals

Lead Arsenate

Paste and Powder

Precipitated Sulphur

WEED KILLER

A list of our general Technical Chemicals sent on application



IONONES: METHYL IONONES

WHITE, TOMKINS & COURAGE LTD.

REIGATE SURREY



ALKALOIDS

Fine Chemicals Opium Derivatives

Aloin • Atropine • Bismuth Salts • Caffeine _____
 Cantharidin • Capsicin • Chloroform • Chrysarobin _____
 Codeine • Diamorphine • Emp. Canth. Liq. • Ephedrine _____
 Ergotin • Eserine • Ethylmorphine • Gingerine _____
 Hyoscyamine • Jalap Resin • Leptandrin _____
 Morphine • Opium • Podophyllin Resin _____
 Salicin • Santonin • Scammony Resin _____
 Strychnine • Veratrine and other _____
 Pharmaceutical Chemicals and Preparations _____

*Goods covered by Dangerous
Drugs Acts offered subject
to all regulations.*



T. & H. SMITH Ltd

Blandfield Works 25 Christopher Street, 32-34 Virginia St.
Edinburgh London, E.C.2 Glasgow
EST. 1827

LOZENGES PASTILLES

LIQUORICE & MENTHOL

Glossettes
REGD.

Compressed Tablets

PACKED OR IN BULK, FOR WHOLESALE,
RETAIL AND EXPORT TRADES

ERNEST JACKSON & Co., Ltd.

London Office: Plantain Place, Crosby Row, Boro', S.E.1

Works: CREDITON, Devon

'Phone: Hop 2668 and Crediton 10.



YOUR BEST MARKET

We are direct importers of all kinds of Medicinal Oils and for either the bulk or packed product we can offer you very attractive prices. All Oils are of the finest quality and guaranteed to comply with the 1932 revised specifications.

**OLIVE OIL
GLYCERINE
LIQUID PARAFFIN
SALAD OIL &
CAMPHORATED OIL**

FREE

A testing sample of any of the above together with our latest Price List and full particulars of special contract terms will be supplied to all bona fide enquiries. Write NOW to Dept. C.D. 4.

WILLIAM HAY LIMITED

Manufacturing Chemists

HULL

BONUS**"CLARKES"**

Brand

WORLD-FAMED BLOOD PURIFYING MEDICINE

"BLOOD MIXTURE"

Registered Trade Mark

Brand

For **3 MONTHS** commencing 1st February, 1933,
we are making a **SPECIAL BONUS OFFER**
for a 14 days Counter and Window Display.

ORDER.

3 doz. 3/- CLARKES BLOOD MIXTURE £4 : 1 £5 : 8
(LIQUID OR TABLETS)

COST SELLS
FOR**BONUS.**

$\frac{1}{4}$ doz. 3/- do. 9/-

ORDER.

12 doz. 3/- CLARKES BLOOD MIXTURE £15 : 6 £21 : 12
(LIQUID OR TABLETS)

BONUS

1 doz. 3/- do. £1 : 16

THE ABOVE BONUS WILL ALSO BE GIVEN ON
ASSORTED ORDERS OF EQUIVALENT VALUE,
viz. £4 : 1 AND £15 : 6.

CARRIAGE PAID — PACKING FREE

**ORDER NOW DIRECT OR THROUGH YOUR USUAL
WHOLESALE HOUSE.**

DISPLAY MATTER IS ENCLOSED WITH EACH ORDER.

ASSORTED ORDERS

		Min. Value. Retail	Min. Value £4 : 1	Min. Value £15 : 6
		Per Doz.	Per Doz.	Per Doz.
CLARKES BLOOD MIXTURE		3/-	27/-	25/6
" " "		12/-	108/-	102/-
" " "	TABLETS	3/-	27/-	25/6
CLARKES SKIN LOTION		1/3	11/6	10/6
CLARKES SALVE		1/3	11/6	10/6
" " "		3/-	27/-	25/6
" " "		5/-	45/-	41/6
CLARKES APERIENT PILLS		1/3	11/6	10/6
" " "		3/-	27/-	25/6
CLARKES MEDICATED SOAP	Box 3 Tab.	2/6	8/-	7/6
	Single Tab.	1/-		

**THE LINCOLN & MIDLAND
COUNTIES DRUG CO. LTD.**

PARK STREET, LINCOLN

Telegrams: "LINDUM, LINCOLN."

Telephone: LINCOLN 55

S. O. S.

**THE UNFAILING REMEDY
for INFLUENZA is
H. B. T. FLU' PILLS**

Used with unbroken success for over
20 years for Influenza—Pleurisy—
Pneumonia — Rheumatic Fever —
Lumbago, etc., and with signal success
in the present epidemic. A poly-
chrest with remarkable and extensive
healing powers. Recommend them to
your clients and gain their gratitude.

In bottles 1/3 and 2/6

Terms 33 $\frac{1}{3}$ per cent. Over £2 carr. paid.

**HUNTER BEATTIE
GLASGOW, S.E.**

Tablets

Enquiries are invited for

**ASPIRIN AND CASCARA
TABLETS**

IN BULK OR PACKED.

A Customer writes:—"Re Aspirin Tablets.
Your sample was one of the best we have ever
had, we anticipate doing good business with
you if you can maintain that quality."—WE
CAN, AND MEAN TO!!

LET US QUOTE YOU

CASTLE HUSKISSON, LTD.

Manufacturing Chemists,

Swinton Works, Moon St., Islington, N.1

ESTAB. 1768.

Private formulæ Pills and Tablets carefully and
accurately prepared at lowest possible prices.

Pills

Your Wholesale House
can supply



TRADE MARK **ANOTAL** BRAND.
ETHYLURETHANE OF PHENYLBENZOPYRIDIN-
CARBOXYLIC ACID.



An active campaign to the
Medical Profession, and the
interest thus created, justifies
your stocking this
profitable line.

E. MERCK

DARMSTADT

CHEMICAL WORKS

Samples and Literature sent on request to Medical Practitioners

H. R. NAPP LIMITED,

3 & 4, Clements Inn, LONDON W. C. 2 (Sole Concessionaires for the U. K. and Irish Free State)



**Wholesale
Prices**

1/3 Size
11/6 per dozen net
3/- Size
27/6 per dozen net

Carriage Paid Gross Quantities
or equivalent.

Manufactured only by

J. F. WHITE & CO., Chemists
BENSON STREET, LEEDS.

ERGOPIOL
(Smith)

Protective Mark
Patented in U.S. and
Foreign Countries.

Ergoapiol
(Smith) is identified by the letters "M. H. S." raised in the gelatin on the inside of each capsule—thus,



Capsule cut in half thru the seam, showing initials.



Capsule intact, showing no mark objectionable to the physician.

[Ergoapiol (Smith) is to be had only in packages of twenty capsules each—never supplied in bulk or other form.]

MARTIN H. SMITH CO., New York, N. Y., U. S. A.

**ALL PREPARATIONS CONTAINED IN THE
BRITISH PHARMACOPCEIA 1932—**

CAN BE OBTAINED FROM:—

WILLOWS, FRANCIS, BUTLER & THOMPSON, LTD.

73-5-89a, SHACKLEWELL LANE, LONDON, E.8.

TELEPHONE :
GLISSOLD 6361 (4 lines)

— ESTABLISHED 1751 —

TELEGRAMS :
FORTY KINLAND, LONDON

AND NOW COMPLETING OUR **SECOND CENTURY** OF SERVICE TO THE PHARMACIST.

NEW PRODUCTS

now being advertised to the Medical Profession.

BIVATOL (LIPO-SOLUBLE BISMUTH)

Ampoules of 2c.c. Boxes of 12. Retail 7/-. Wholesale 66/- per dozen.

BIOCHOLINE

A solution of Pure Choline Hydrochloride 2cgm. per c.c.

Ampoules of 1c.c. Boxes of 12. Retail 7/6 Wholesale 69/- per doz.

25	"	15/-	"	138/-	"
50	"	22/6	"	210/-	"
100	"	37/6	"	360/-	"

HYPOTENSYL

The active principles of Viscum (Gul) with Gland Extracts.

Tablets. Bottles of 50. Retail 4/-. Wholesale 36/- per doz.

Further particulars on request from :-

THE ANGLO-FRENCH DRUG CO., LTD.**11 & 12 GUILFORD STREET, LONDON, W.C.1**

Telephone : Holborn 6011.

Telegrams : " Ampsalvas, London."

'CUTTERS'(REGISTERED)
THE ORIGINAL
AND ONLY
'CUTTERS'**'CUTTERS'****HEAD & NERVE POWDER**

FROM YOUR WHOLESALE, OR SEND DIRECT TO PERRY'S POWDERS, LTD., LEEDS

ATLAS**"KATTLEKURE"***The Best and Safest Remedy for Cattle, Horses, etc.**There is money to be made in Veterinary lines if you stock the right lines. "Kattlekure" is known throughout the country and regularly advertised in all the farming journals.***CARTER BROS., SHIPLEY, Yorks****EMKOLENE** (REGD.)**THE EFFECTIVE TREATMENT FOR PILES**

3/- PER JAR

*Liberal Trade Terms***THE EMKOLENE MANUFACTURING CO.**21-23 CHISWELL STREET, LONDON, E.C.1
*or all wholesalers.***AN OLD-FASHIONED—BUT REALLY EFFECTIVE
remedy for COUGHS, COLDS, IN-
FLUENZA and BRONCHIAL troubles****Licoricine**
ACTS LIKE MAGIC

Prices 10½d., 1s. 3d. and 3s.

MANDALL & CO. Ltd., 17/23 Stepney Rd., Newcastle-on-Tyne**TERMS**

10½d. size, 8/6 per doz.

1/3 " 12/- "

3/- " 27/- "

Less 5% dis. on £6 orders.

Carriage paid on orders of
£2 and over.

SERVICE WITHOUT STINT!

For many years we have set ourselves out to satisfy the paramount need of the modern chemist for service. The success of our policy is evinced by the steady growth of our business despite the last few years of depression.

The fact that a steadily increasing number of chemists have come to rely upon "Mawdsley's" for their proprietaries is proof that we satisfy a real need, that we have something to offer you. Remember that our service is coupled with the keenest prices obtainable anywhere.

*A postcard will
bring our catalogue*

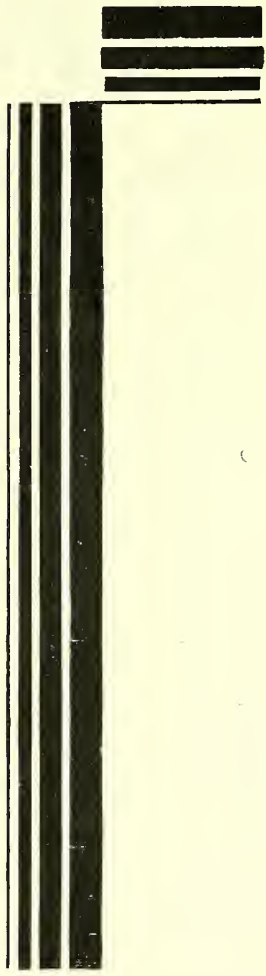
*Ask our repre-
sentative to call*

D. MAWDSLEY & CO.

THE HOUSE FOR PERSONAL SERVICE

RIGA STREET, SHUDEHILL,
MANCHESTER

Telephone : BLAckfriars 9851-2-3



PATENT MEDICINES &
ALL PROPRIETARIES
SURGICAL DRESSINGS
WINES.
PACKED GOODS.
ETC. ETC.

THE FINEST OINTMENTS ARE SPUN (REG'D) —OF COURSE!

TOILET CREAMS : COLD CREAMS : VANISHING CREAMS :
ALL OFFICIAL AND OTHER OINTMENTS OF EVERY DESCRIPTION
PACKED OR IN BULK

Telephone : Hop 2422

Telegrams :
"Ushenspuna, London."

ROBERT BLACKIE

SHEN WORKS,
TOWER BRIDGE RD.,
LONDON, S.E.1

VISCOSITY

While Specific Gravity is useful as a means of grading Liquid Paraffin, Viscosity is the true test of quality.

As specialists in this material we can offer an Oil with a Viscosity of 290/300 seconds at 100° F.

"QUALITY COUNTS"

C.E. THURLEY & SON

UNITY WORKS

LATIMER ROAD E.7

PHONE : MARYLAND 4686



CHEMISTS

If you do not stock the **NATIONALLY
ADVERTISED** line

CONSTIPON

we will send you a small supply with all
advertising matter on

SALE OR RETURN

CONSTIPON

GLASGOW, C.2

PETROLEUM JELLY "Salvo Petrolia" Brand

THE PERFECTION OF PETROLEUM JELLY
IN BARRELS, KEGS, OR SMALLER PACKAGES IF DESIRED

THE **DEE OIL Co. Ltd.**

DELTA WORKS, BOOTLE,
LIVERPOOL.

Phone : Bootle 1897

Wires : "Cestrian, Liverpool."

LONDON OFFICE : 11 POULTRY, CHEAPSIDE, E.C. 2.

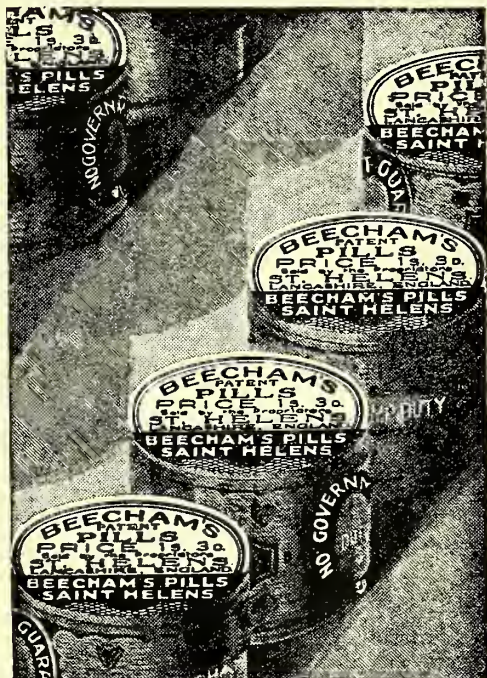
Phone : City 8455

Other grades of Petroleum Jellies, White Bases, &c., WHITE OILS, B.P. and Technical
OLEUM DEELINAE (DEE OIL) THE UNFAILING CURE FOR ECZEMA

Two lines that sell every day—every year

£2 parcel for either Beecham's Pills or Beecham's Powders or Assorted Beecham's Pills and Beecham's Powders

38% PROFIT



BEECHAM'S PILLS

The family Remedy for the last 80 years for SICK HEADACHE, BILIOUSNESS, CONSTIPATION and INDIGESTION. The best daily seller in the Drug Trade.

An intensive advertising campaign is continually appearing in all leading National and Provincial papers. This is supplemented by House-to-House distributions throughout the country.

There is no fear of Bad Stock as all replacements are made free of charge.



BEECHAM'S POWDERS

Introduced a few years ago, have the confidence of the public for INFLUENZA, COLDS, CHILLS, HEADACHES, RHEUMATISM, LUMBAGO, NERVE PAINS, etc. Made from the finest ingredients obtainable. Chemists will be well advised to keep adequate stocks of Beecham's Powders to enable them to meet the big and increasing demand.

TERMS TO THE TRADE

Beecham's Pills	...	1/3 Size	11/9 Per Doz.	Beecham's Pdr.	...	1/3 Size	11/9 Per Doz.
"	"	3/-	28/-	"	(Tablet Form)	1/3	11/9
"	"	5/-	54/-	"	"	5/-	54/-
Beecham's Cough Pills	...	1/3 Size	11/9 Per Doz.				
		3/-	28/-				

Less 2½% Discount and 5% Window Display Allowance. Minimum Order £2 - 0 - 0 value. Monthly Account. All goods packed free and sent carriage paid. Stock more—show more and sell more Beecham's Pills and Beecham's Powders.

BEECHAM'S PILLS LTD.

ST. HELENS

LANCASHIRE

Telephone : 2241 St. Helens

Telegrams : Beecham St. Helens

For OVER 75 YEARS

Dr. J. Collis Browne's
CHLORODYNE

has maintained a

WORLD-WIDE REPUTATION

TO-DAY'S DEMAND BEING
GREATER THAN EVER.

**ARE YOU GETTING
YOUR SHARE OF
THIS INCREASE ?**

Be sure you hold stocks
to meet the demand and
remember that

Dr. J. Collis Browne's
CHLORODYNE

IS ONLY SOLD THROUGH CHEMISTS
SIZES 1/3, 3/-

Order from your Wholesaler
with other goods.

SOLE PROPRIETORS :
J. T. DAVENPORT Ltd.
UNION STREET, S.E.1

SIMPKIN'S BARLEY SUGAR

Embodying Dextrose Powder in a B.P. Liquid Glucose and Sugar Base, along with other Simpkin's Confections which are made for the public's good, are now

**NATIONALLY
ADVERTISED**

Through

**CHEMISTS
EXCLUSIVELY**

Enquiries for supplies which
we receive daily from
shops in other trades are
rigorously refused.



Write for Price List (and enclose slip showing qualifications) to
A. L. SIMPKIN & CO., LTD.
THE CHEMISTS' CONFECTIONERS, SHEFFIELD, 4
Depots: London, Edinburgh, Birmingham, Portsmouth, etc.

**YOU'RE
"ALL OUT" FOR
BUSINESS?**

For thousands of people Box's Pills are the standard remedy for all digestive disorders. The demand is steady and increasing—largely through the recommendations of users.

To secure your share of the profitable flow of business it is necessary to inform the demand which passes by your establishment. Telling window and counter display material is free on request.

Obtainable from wholesalers or direct from the proprietor



W. H. BOX
161 KING ST.
PLYMOUTH
Telegraphic Address :
Giant Plymouth.
**GIANT PILL
MANUFACTORY**

**BOX'S
INDIGESTION
PILLS**

OUR SIDE AND YOURS THE 'ASPRO' SALES POLICY



Two factors operate to produce for you the maximum 'ASPRO' sales. One is the 'ASPRO' advertising to the public which is carried on by the largest newspaper campaign of its kind in the world, backed up by periodic distribution of broadsheets and booklets into almost every home in the country. The other is the vast window display service available for all chemists. When you show an 'ASPRO' window display you definitely connect up with this huge advertising campaign. You obtain direct benefit in greater 'ASPRO' sales and additional benefit from the sale of other goods which you can sell to customers who come into your shop for 'ASPRO'. It definitely pays to show 'ASPRO' display matter in your windows continuously. Frequent changes are available so it does not get out of date. You can also increase your sales by utilising the 'ASPRO' advertising bag and envelope service. You make a definite saving, too. The prices are given below. Then there is the 'ASPRO' bonus which is equivalent to 17 per cent. extra profit if you buy 'ASPRO' on bonus terms. Why not order a bonus parcel through your wholesaler to-day and write us for an 'ASPRO' window show and a supply of bags or envelopes so as to obtain the maximum benefits from the large amount of 'ASPRO' sales that are about?



OUR SIDE, THE ADVERTISING SIDE, IS ALWAYS IN OPERATION, YOUR SIDE, THE DISPLAY SIDE, COMES INTO OPERATION WHEN YOU PUT IN AN 'ASPRO' WINDOW SHOW. THESE TWO FACTORS WORKING TOGETHER BRING INCREASED SALES ACTIVITY.

PRICES FOR 'ASPRO' PAPER BAGS AND ENVELOPES

Kristal Envelopes	-	-	2/6 per 1,000	} Cash with Order
Greaseproof 2oz. Bags	-	-	1/- per 1,000	
Greaseproof 2oz. Bags (long)	-	-	1/6 per 1,000	

Agents:

GOLLIN & CO. PTY., LTD.
(‘Aspro’ Dept.) SLOUGH, Bucks.

Telephone: SLOUGH 608

'ASPRO' consists of the purest Acetylsalicylic Acid that has ever been known to Medical Science, and its claims are based on its superiority.

Made by ASPRO LTD., Slough, ENGLAND

No proprietary right is claimed in the method of manufacture or the formula.



Why you should stock all 3 sizes of **CURICONES**

Many retailers only stock our 5/- package of CURICONES, and therefore lose sales when a customer asks for the three and six bottle packages, and demands them at the reduced prices.

Separate bottles cannot be retailed at less than 5/- each, whereas the three and six bottle packages are sold at 14/- and 24/- respectively.

These packages must be sold intact and the contents cannot be retailed separately.

Don't risk losing business by not being able to supply.

Carry a stock of each of the three sizes.

STEPHEN MATTHEWS & CO., LTD.,
Manufacturing Chemists and Druggists,
19/21 Farringdon Street, London, E.C.4.

Curicones

THE TESTED
RHEUMATIC REMEDY



THE SAFE SOLID FUEL

Light it with a match!

DISPLAY AND YOU WILL SELL

APPLY FOR SHOWCARDS AND LEAFLETS

10 Bars 6d.
20 " 1/-
50 " 2/3
100 " 4/-

STOCK GENUINE "META"
APPLIANCES

Sole Distributors:

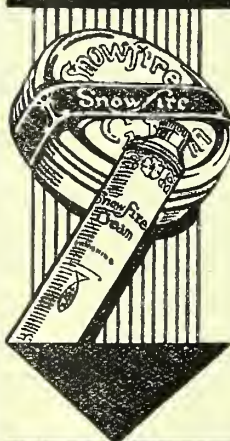
ELMESAN (LONDON) LTD.,
66 Victoria St., London, S.W.1

See our Exhibit at the "Ideal Home
Exhibition," 370 Grand Hall Gallery,
Olympia



K-D AIR DRIER? Write for details

MORE POPULAR THAN EVER...



Easy to see why Snowfire Cream goes on increasing in popularity. Its purity and fragrance, its greaseless vanishing quality and its real beautifying properties make it the favourite everywhere. Every customer you make means more to come—every satisfied user tells her friends about Snowfire. So make good displays—brisk sales and good profits will result.

Handbag Containers 3d.

Dainty 6d. Tubes

Retail

Snowfire

VANISHING CREAM

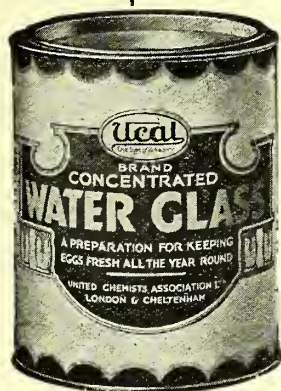
Manufactured by
F. W. HAMPSHIRE & CO., LTD., Sunnydale Works, Derby

● **buy wisely**

● **and buy early**


THE "U.C.A.L." Brand of WATER GLASS (140° Twaddle)

● Our terms are, we believe,
lower than any other packers.



Packed in strong
decorated tins —

SIZE	COST per doz.
1 lb.	2/8
2 lb.. . . .	4/6
4 lb.	8/6
7 lb.	14/6

 Delivery Free
by
"Ucal" Vans
or
Carriage
Forward
by rail.

Please note these carriage
conditions when ordering
and quote on order —

REF. K 6

UNITED CHEMISTS' ASSOCIATION, LTD.

Manufacturing Chemists,

CHELTENHAM, and 4 and 6 KEITH GROVE, LONDON, W.12.

Phone : Cheltenham 3021.

Phone, London : Shepherd's Bush, 3437/8.

It appears that many retailers are still unfamiliar with the current prices for Collosol Brand Halibut Liver Oil. In November last a 40 per cent. reduction in prices was announced as follows :

COLLOSOL BRAND HALIBUT LIVER OIL

Vials (and pipette)	5 cc ...	...	...	2/-
" " "	30 cc ...	...	...	9/-
Botts (and pipette)	120 cc ...	...	...	29/-
" " "	100 cc ...	...	...	24/-
Capsules (3 minim)	25 ...	...	...	2/6
"	100 ...	...	...	8/6
"	500 ...	...	...	33/6

HALIMALT

Also available at Special Bonus Terms

1 lb. 2/6 2 lb. 4/6 7 lb. 12/6

THE CROOKES LABORATORIES

British Colloids Limited.

Telephone : Willesden 6313 (3 lines)

Park Royal, London, N.W.10

Telegrams : Collosols Harles, London

PURE MALT EXTRACT

with FINEST

NORWEGIAN COD LIVER OIL

The Brand that does not separate nor crystallize.

Your own name and address on labels. In English jars, etc. Direct from the actual manufacturers.

THE BRITISH DIAMALT COMPANY
SAWBRIDGEWORTH - - HERTS.

London Representative—

J. E. JAMES, 66 Kenley Road, St. Margarets, Middlesex.

VICHY-CELESTINS

The world renowned NATURAL Mineral Water.

(And the other State Springs of Vichy)

We beg to remind the Trade that the above are on the P.A.T.A. list and show a good return to retailers.



These waters are largely prescribed by Physicians, and Chemists would do well to have an ample stock on hand.

Pamphlets, Show Cards and Dummy Bottles forwarded on application.

CAUTION—Each bottle from the STATE SPRINGS bears a neck label with the word "VICHY-ETAT" and the name of the

SOLE AGENTS :—

INGRAM & ROYLE LTD.

Bangor Wharf, 45 Belvedere Road, London, S.E.1

And at LIVERPOOL and BRISTOL

Telegraphic Addresses :

"Ingram Royle Watloo, London."
'Phone : Hop 4343 (2 lines).

" Sprudel, Bristol "
'Phone : 21913.

" Célestins, Liverpool."
'Phone : Bank 4528.

PETROLEUM JELLIES

WHITE, LEMON, YELLOW, AMBER, RED, GREEN.

WHITE & COLOURED OILS

YELLOW, GREEN, RED FOR BRILLIANTINE, etc.

LIQUID PARAFFINCOLOURLESS, TASTELESS, ODOURLESS.
ALL SPECIFIC GRAVITIES.

B.P. AND TECHNICAL QUALITIES

*Wholesale Trade only.***STERNS LTD.**

Royal London House, Finsbury Sq., London, England

Telegrams: "CENTUMVIR, TELEW, LONDON."

**MEL ROSE —
TABLETS**FOR
CHAPPED
HANDS, &c.

Manufactured for close on 50 years



The public demand is maintained in spite of many imitations, and Chemists can rely on sales all the year round.

*Look to your Stocks.***2d. and 4½d.****MEL ROSE —
CREAM***Sold in Jars for the Dressing Table.
Contains all the remedial properties of
the Tablet made up in a softer form.***9d.****ROBERTS & SHEPPEY**SOLE
MANUFACTURERS

2 SKIPTON ST., LONDON, S.E.1

IONIZED IODINE

(MOLSON BRAND)

Obtainable from the usual wholesalers or the makers

MOLSON IONIZED IODINE CO. Ltd.

34 C, GABRIEL'S HILL, MAIDSTONE

**SALES OF "TENZ" TAKE AWAY
THE BREATH***"Tenz," the tablets that sweeten the breath without scenting it, are being used by people in every walk of life.**"Tenz" Antiseptic Tablets instantly remove all odours from the breath. There is a universal demand for this line. Keep the dainty Display Box on your counter, and get your share of the sales. Sells at 3d. per tube and shows big profits. Order direct or from your usual Wholesaler.***Tenz Manufacturing Co., 8 Fairfield St., Manchester****—24,806—**

known Renipas users to date, being 412 more than when we advertised three weeks ago. Also 2,671 more than our first advertisement last October. This steady rise day by day is surely impressive Mr. Chemist, and always remember

RENIPAS

Buyers in your district are yours for the taking

Renipas is stocked by principal Wholesalers such as:—Butler & Crispe, May Roberts, Barclays, Edwards, Newberys, Sangers, Suttons, Hodders (Bristol), Daniels (Derby), Butler, St. Dalmas and Wands (Leicester), Evans Lescher & Webb, Thompson and Sumner (Liverpool), Barnes & Crompton (Preston), Hedges (Birmingham), Loft-house & Saltmer (Hull), Rowland James (Swansea), McMullan (Belfast).
International Chemical Association, 69 Fleet St., London, E.C.4



Every Cell in the Body

needs Vitamins A and D for its perfect development.

Vitamin A encourages healthy growth. Vitamin D makes baby's teeth strong and fortifies the whole bony fabric.

Clinical experiments have shown that Vitamin D, presented in its natural form in Norwegian Cod-Liver Oil, is much more effective against rickets than even twice as large a quantity presented in irradiated ergosterol. The Vitamin A in Norwegian Cod-Liver Oil increases natural resistance to bacterial infection.

**EVERY CHILD OUGHT TO
HAVE NORWEGIAN COD-LIVER OIL IN WINTER**



NORWEGIAN COD LIVER OIL
IS WORLD-FAMOUS FOR ITS HIGH QUALITY

Awarded Certificate by
The Institute of Hygiene
for Purity—Quality—Merit

LOCARNO

MEDICATED TOILET ROLL

Costs 3d.



BRITISH
MADE

Sells 6d.

Sales
restricted
to Chemists

You are sure of
repeat orders
by selling the
"LOCARNO"

Contains 650 sheets of pure
white Sulphite Paper.
Free delivery. Packed in cartons
Free Sample Roll on application
Each Roll 12 oz.

Sole Manufacturers:

J. RUTHERFORD & Co. Ld.

VICTORIA PAPER MILLS
VICTORIA RD. HOLLOWAY, LONDON, N.7

CONTRACTORS TO H.M. GOVERNMENT

Best sellers

The
public is asking
for **ZEAL**
CLINICAL
THERMOMETERS
because they are:-
GUARANTEED TO
STAY ACCURATE
CONSISTENTLY
ADVERTISED

Made by

ZEAL

—the name the
public knows.

G. H. ZEAL, LTD.,
75 & 77, St. John St., London, E.C.1.



The "BURMEX" BRAND

Is made by a special Heat-Cured Process and
is guaranteed not to deteriorate in either
Home or Tropical climates for at least 2 years.
Carefully tested and Warranted Absolutely
Perfect.

Send for free sample to

A. BERMAN & SONS,
76, QUAY STREET,
MANCHESTER, Eng.

PRICE
24/-
Per Gross



IZAL MEDICATED TOILET ROLLS

REDUCED TO 6^D



*Note the new wrapper. It will make
a powerful display on your shelves.*

ON APRIL 1ST

same

number of sheets.

same

soft, *surgically clean* paper, free from advertising matter.

medicated

with the *same* Izal, six times as effective as ordinary disinfectants.

BUT larger

sales owing to reduced price

AND large

advertising campaign to inform the public.

FREE

'Price Reduced' cards to announce the reduction on your counters and in your windows.

Write for 'Price Reduced' cards and full particulars to:—

NEWTON, CHAMBERS & Co. LIMITED, THORNCLIFFE, near SHEFFIELD

CORKS

for Chemists.

Send us your Enquiries
and compare our prices.

Wholesale and Export.

C. OLLEY & SONS, LTD.

Established 1844.

Camperdown St. and Gt. Alie St., London, E.1

Tel. No.: Royal 2868. Tel. Ad: "Circumference, Ald, London."

METALLIC CAPSULES
FOR ALL KINDS OF BOTTLES AND JARS.

The Tonkin Metallic Capsule Co.

Proprietors: C. Olley & Sons, Ltd.



There is no shadow of doubt about the Supreme excellence of the "Town Talk" Impregnated Silver Plate Cloth.

Order from
JAMES WOOLLEY,
Sons & Co., Ltd. USED by Silversmiths to preserve the beauty of their own wares, it is SOLD by the leading hardware Stores in the country and is ASKED for by housewives everywhere.

Manchester
AYRTON, SAUNDERS & Co., Ltd.
Liverpool
BROOKS & Warburton, Ltd. It has no rival for cleaning Gold, Silver and Electro Plate and is advertised continuously in the National Daily Newspapers and Women's Journals.

GOODALL, BACKHOUSE & Co., Leeds
MAY, ROBERTS & Co. Ltd., London
Stockists don't have to SELL "Town Talk"—they are asked for it.

Link up with our energetic Sales Service.

or direct from the sole makers.

Terms and samples from:—

TOWN TALK POLISH CO., MANCHESTER

DRUMMER DYES

are constantly in great demand by women who realise the advantages of home-dyeing

It pays you well to stock and display
DRUMMER DYES

safe
easy

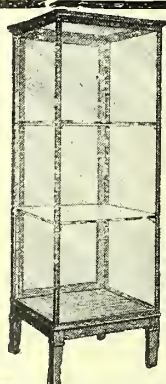


and
sure

EDGE'S

BOLTON

DDT 10-33



SPECIAL OFFER OF UPRIGHT SHOWCASES

No. C.D.F. 4422

Very useful upright Showcase 5'9" high x 20" wide x 20" deep, Glazed 1/2" Drawn Plate Glass. Interior fitted 2 adjustable glass shelves. Oak or Mahogany frames.

£9.5.0 each

Send for our New Catalogue No. C.D. 1400 of Showcases.

DUDLEY & COMPANY Ltd.

451 Holloway Rd., London, N.7

City Showrooms: 65/66 Fore Street, E.C.

DISTILLED WATER

AT

1/3d. PER GALLON

By using Brown's Patent Automatic Water Stills pure distilled water may be obtained at the above cost, using steam at any pressure between 30 and 100 lbs. per square inch. The product is pure distilled water, not condensed water from steam service pipes.

Full particulars free on application. Enquiries are not followed by personal call.

MADE ALSO FOR GAS HEATING

BROWN & SON, LTD

Alembic Works, Wedmore St., London, N.19

To BUYERS of TRUSSES!

The most complete up-to-date facilities for the manufacture of **RUPTURE APPLIANCES** of every known English and American pattern are operating at

**BLACK BULL WORKS,
MARKET ROAD, LONDON, N.7**

Hard Rubber, Celluloid, Leather and Mole
Covered and Elastic Band Trusses, under the

"MASTER"
BRAND
TRADE MARK



are sold in all
Markets of the
World.

"KO-RALLIUM." A new flexible covering for Steel Springs, is immune from Warping, Cracking, Shrinking or Peeling, Non-Inflammable, Impervious to Moisture, Neutral to URIC ACID Secretions.

Supersedes Hard Rubber or Celluloid.

Get to know of this. It is **Something Different!**

Suspensory Bandages and Jock Straps

We offer distinctive lines of outstanding value. Our weaving sheds allow of all intermediate profits being passed to our customers.

Write for sample range at Special Rate, then compare.

F. SCHUTZE & CO., LTD.

Black Bull Works, Market Road, London, N.7

PERKEN, SON & CO., LTD.

Established 1852.

Contractors to H.M.
Government.

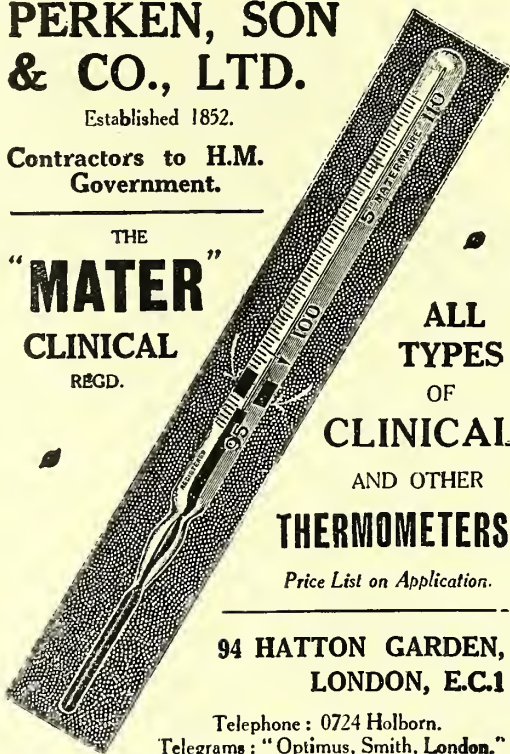
THE
"MATER"
CLINICAL
REGD.

ALL
TYPES
OF
CLINICAL
AND OTHER
THERMOMETERS

Price List on Application.

94 HATTON GARDEN,
LONDON, E.C.1

Telephone: 0724 Holborn.
Telegrams: "Optimus, Smith, London."



ALL ARMSTRONG CORKS

ARE UNIFORM IN
SIZE, TAPER & QUALITY



ARMSTRONG CORK CO., LTD.

Aldwych House, Aldwych, London, W.C.2

Telephone: Holborn 7503 (5 lines)

SANITARY TOWELS



The ORIGINAL and Most Popular
The "K." All wool in knitted cover,
very soft.

The "CELTEX." Made of Cellulose
for easy disposal.

FROM YOUR WHOLESALE HOUSE, PLEASE

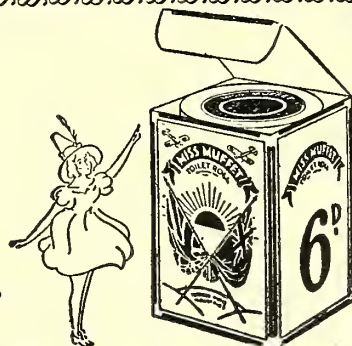
SOUTHALLS

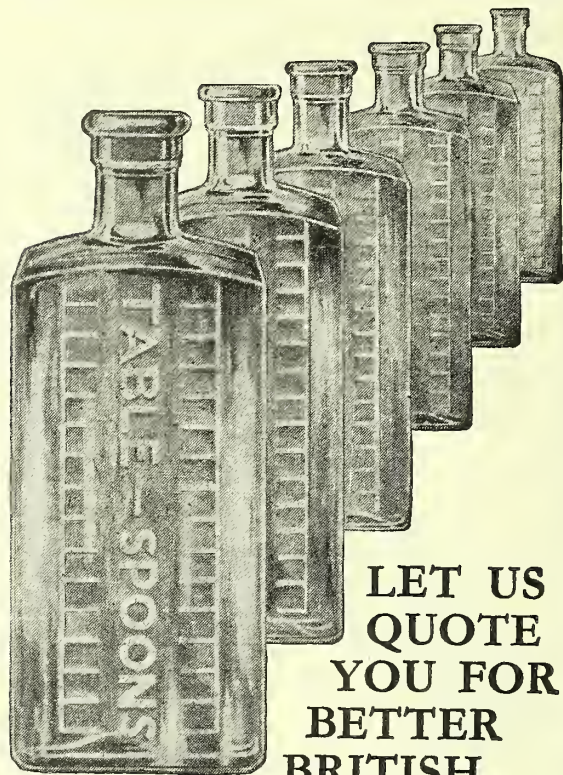
Your Wholesaler Can Supply MISS MUFFET TOILET ROLLS

675-700 Sheets of 100% Pure White Paper. Free from advertisement (printing ink is dangerous). Neatly reeled—well perforated—packed in dust-proof cartons.

IN CARTONS

THE MISS MUFFET TOILET PAPER CO., West Bridgford, Nott'm.





**LET US
QUOTE
YOU FOR
BETTER
BRITISH
BOTTLES**

For eighty years or so we have been making bottles of every description, so we can claim to know something of Drug Trade Requirements.

Hand or machine made bottles of every type—sturdy and accurate and well finished—we can supply whatever you need.

Bottles of first class quality at highly competitive prices. It will pay you to ask us to quote for your next order.

ESTABLISHED 1851

**FREDERICK
HAMPSON**

PERSEVERANCE GLASS WORKS

SALFORD

Telephone :
Trafford Park 0814/5

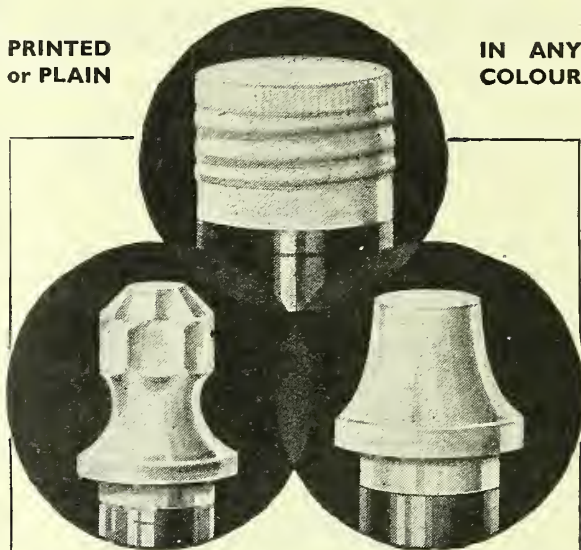
Telegrams :
"Attention" Salford.

VISKAP

**SELF-FIXING
BOTTLE CAPS**

PRINTED
or PLAIN

IN ANY
COLOUR



PROTECTION

first, last and all the time is definitely assured when your product is sealed with a Viskap. Place a wet Viskap in position—let it dry—seals as it shrinks. Perfectly hygienic. Entirely British.

ALSO

MOULDINGS

OF ALL DESCRIPTIONS

FROM

Bakelite & Similar Materials

Send us your enquiries.

We have a reputation of many years of service and quality to keep up and are anxious to help you.

LET US ADVISE AND QUOTE YOU

**VISCOSE DEVELOPMENT CO., LTD.,
WOLDHAM ROAD, BROMLEY, KENT**

Telephone : Ravensbourne 4561

It looks better -It keeps safer in a **BETTS'** COLLAPSIBLE TUBE



- They keep your product in perfect condition.
- Their quality and finish is unsurpassed in the trade.
- All British made.
- New machinery enables us to cut production costs.

Send for particulars, samples and quotations to

BETTS & CO., LTD.

1 WHARF RD., CITY RD., LONDON, N.1

Established 1857

Telephone: Clerkenwell 1918

New Zealand Representatives:

NEIL, CROPPER & CO., LTD., Post Box 74, Dilworth Building
AUCKLAND NEW ZEALAND

POWDER BELLOWS

for
Powders



SCREW CAPS

Concealed
Thread Caps



In
Gilt and
Enamel
Spray
for
Face Cream Pots
etc.

BAKER METAL STOPPER CO. LTD.

HADLEY STREET, KEYHILL, BIRMINGHAM

'Phone: NORTHERN 1562. 'Grams: "SCREWCAP, BIRMINGHAM."

BEATSON, CLARK & CO.

LTD.

Chemical and Medical Glass Manufacturers

ROTHERHAM, YORKS.

Telegrams . . . "BEATSON, ROTHERHAM."



**SHOP ROUNDS. OIL ROUNDS.
POISONS. SYRUPS & ETHERS**

WITH AND WITHOUT RECESS LABELS.

ESTABLISHED 1751.

**Continuous and Steadily Advertised Goods
FOR DESTROYING RATS AND MICE**

DANYSZ VIRUS

Retail Price (Protected) Net Wholesale Price
Virus for Rats and Mice, single tube, 2/- .. 15/- per doz.
3 tubes, 5/-
Virus for Mice only .. single tube, 1/6 .. 9/-
3 tubes, 3/-
Date-expired tubes returned to us postage paid will be exchanged free of charge.

Danysz Virus in Liquid Form

Retail Price Wholesale Price
Quart Bottles 6/- each .. 4/6 each
Pint .. 4/6 .. 3/9

**HALLER'S EXTRACT OF SQUILL
and DANZO RAT KILLER**

Discount off Retail Prices 25% Monthly Account, or 33½% cash with order.

	Retail	Monthly A/c	Cash with Order
1/2 gall. tins ..	10/-	7/6	6/8
1 " ..	18/-	13/6	12/-
5 " ..	80/-	60/-	53/4

DANZO BEETLE POWDER

For destroying Blackbeetles, Cockroaches, Crickets, &c.

Retail Prices (Protected)		Wholesale Prices per doz.	
In tins	3d.	In boxes of	2 doz.
"	6d.	"	1
"	1/-	"	7/3
"	2/6	"	18/-

Danzo Beetle Powder will not deteriorate by keeping.

CARRIAGE PAID ON ALL ORDERS.*To be obtained from***HALLER LABORATORIES, LTD.****325 Borough High Street, LONDON, S.E.1**

Telegrams: "Virudana, Sedist, London." Telephone: Hop 2711

DRY. SELF-FIXING. ALL SIZES.*Finest Quality and Appearance.***Bottle Caps**

Enquiries Invited. Samples Submitted.

T. C. Bussell 34 Gt. Tower St.
LONDON, E.C.3.


Phone: Royal 2154.

MEDICAL SURGICAL SCIENTIFICEnquiries invited
Wholesale & Export
only, for

**BRITISH MADE
GLASSWARE**

Test Tubes,
Flat Bottom Packing
Tubes, with or without corks.
Syringes, Nasal Douches, Nipple
Shields, Surgical Instruments.

POULTEN, SELFE & LEE, LTD.
103 Bow Road, London, E.3, EnglandPhone:
East 6332-3



Glass Bottles

MEDICAL FLATS,
PANELS, POISONS, etc.
Good Quality - Keenest Prices
Buy from the actual makers

Wm. HANSON & SONS Ltd.
ROSEGROVE, BURNLEY

Corks & Stoppers

All progressive business firms are keen buyers. Money saved in buying is extra capital. Nobody to-day can afford to buy other than in the best market.

Mundet Cork Products Ltd.
12/16 Abbey street
TOWER BRIDGE ROAD London S.E.1
Telegr: Mundetcomp Berm London
Telephone: Hup 2043-4-5

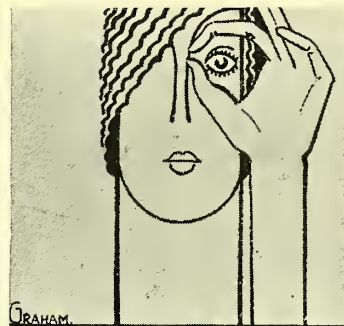
NOW BRITISH MADE

WAGNER'S DRY BOTTLE CAPS

BEST IN QUALITY & APPEARANCE



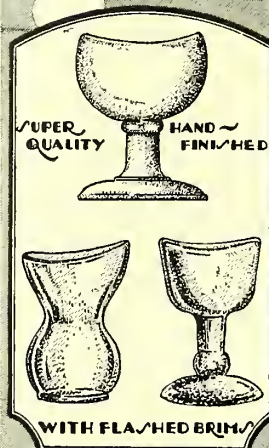
Self-Fixing
R.V. WAGNER
33 BROOKE ST., LONDON, E.C.1 Tel.: Holborn 5090



GRAHAM

The Eye is AN IMPORTANT ORGAN

When treated only
the best Appliances
should be used.
Supply your Custom-
ers; therefore, with
one of our
EYE BATHS
of best English make



WOOD BROS. GLASS CO.
LIMITED

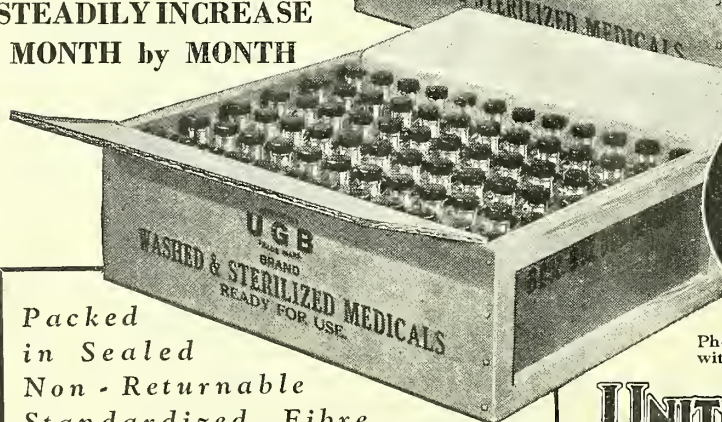
BARNSELY, ENGLAND

The U.G.B. "Triple Service"

WASHED and STERILIZED MEDICAL BOTTLES

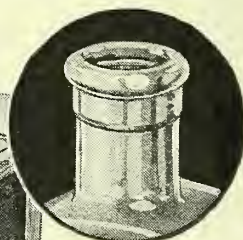
MODERN annealing ovens deliver bottles bright and sterile. Packed without the U.G.B. special treatment a film will gradually appear on the surface of the glass. Hence the necessity of our scientific sterilizing process passing bottles through boiling distilled water and drying in super-heated filtered air before packing in dust-proof cartons. How vastly superior to many competitive makes of so-called "washed and papered" bottles which are often rinsed in none too clean ordinary water.

OUR SALES OF THIS
UNIQUE SERVICE
STEADILY INCREASE
MONTH by MONTH

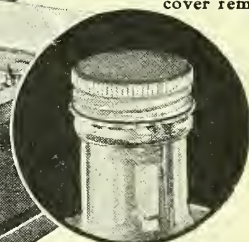


Packed
in Sealed
Non-Returnable
Standardized Fibre
Cartons in the Following Quantities Only

1 oz. Packed 2 gross per case	8 oz. Packed 6 doz. per case
2 oz. " 1½ " "	10 oz. " 4 " "
3 oz. " 1 " "	12 oz. " 4 " "
4 oz. " 1 " "	16 oz. " 4 " "
6 oz. " 6 dozen "	20 oz. " 3 " "

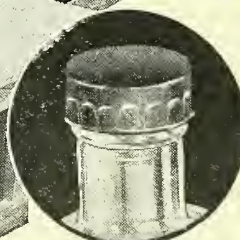


1. CORKMOUTH
Photograph of actual
package of Cork-
mouth bottles with
cover removed.



2. WHITE
ENAMELLED
ALUMINIUM
SCREW CAP

Photograph of actual
package of Screw-cap
bottles with cover re-
moved.



3. BLACK
KORKALITE
MOULDED
CAP

Photograph of actual package of bottle
with Black KORKALITE MOULDED Caps.

UNITED GLASS BOTTLE MANUFACTURERS · LIMITED

The Largest Manufacturers of Glass Bottles in Europe.

40-43 Norfolk Street, Strand, W.C.2

Telephone:
TEMPLE BAR 6480
(10 lines)

Telegrams:
"Unglaboman, Estrand,
London"



MILLION READERS

The greatest newspapers and magazines in the country, with a combined circulation of over sixteen million copies per issue, will carry the Wright's Coal Tar Soap Advertising into the homes of your customers throughout 1933.

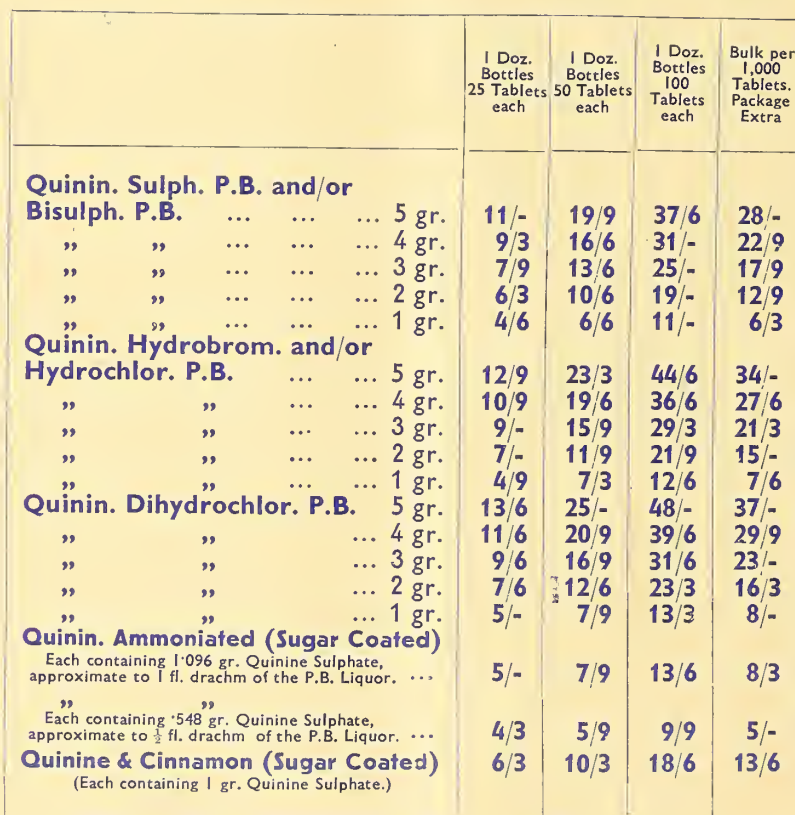
Each one of these sixteen million readers will frequently be reminded of the unique qualities of Wright's Coal Tar Soap—will be convinced of its genuine merit by sound logical statements that are backed by scientific authority.

With your co-operation these sixteen million people become buyers of Wright's. Let it be known—by window and counter display—that you are ready to serve them.

WRIGHT'S

coal tar SOAP

Wright, Layman & Umney
(1932) Ltd., 46 Southwark
Street, London, S.E. 1



SPECIAL QUOTATIONS FOR LARGE QUANTITIES





The CHEMIST AND DRUGGIST SUPPLEMENT

This Supplement is inserted in every copy of The Chemist & Druggist

MARCH 25,
1933

28 ESSEX STREET, LONDON, W.C.2

ADVERTISEMENT TARIFF

ALL ADVERTISEMENTS are PREPAID, so that remittance must accompany instructions in each case. If it be necessary to telephone or telegraph an urgent announcement this may be done, provided the money is telegraphed at the same time.

BUSINESSES WANTED and for **DISPOSAL, PREMISES TO LET** and **FOR SALE, PREMISES WANTED, PARTNERSHIPS, GOODS for SALE and AGENCIES**—6/- for 50 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS OPEN—6/- for 40 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

SITUATIONS WANTED—2/- for 18 words; every additional 10 words or less, 6d. (Box No., 1/- extra.)

LEGAL NOTICES, TENDERS, AUCTIONS, and all specially-spaced announcements, 1/3 per nonpareil line (12 lines = 1 inch single column). (Box No., 1/- extra.)

MISCELLANEOUS (Wholesalers' Section) for odd and second-hand lots—10/- for 60 words; 1/- for every additional 10 words or less. (Box No., 1/- extra.)

EXCHANGE COLUMN (for Retailers, etc.)—Twopence per word, minimum 2/- (Box No., 1/- extra.)

THE CHEMIST & DRUGGIST, 28 Essex St., Strand, London, W.C.2
Telephone: Central 6565 (8 lines). Telegrams: "Chemicus, Estrand, London."

CLOSING FOR PRESS.

must reach us
not later than

FIRST POST THURSDAY MORNING

All advertisements intended for
insertion in this Supplement

ORRIDGE & CO.

56 LUDGATE HILL, E.C.4
ESTABLISHED 1846
Telephone No. 1 CITY 2283
May be CONSULTED at their Offices on MATTERS of SALE, PURCHASE & VALUATION

We make no charge to purchasers, and invite intending buyers to communicate with us, stating their requirements

1.—S.W. LONDON (Busy Main Road).—Cash Retail and Dispensing Business; returns last year £2,750, with gross profit £1,037; whole of rent covered by sublet; if conducted personally the net profit would be in the neighbourhood of £700 per annum; held on lease; stock and fixtures worth approximately £1,700; price £2,750; or possibly valuation terms would be considered.

2.—NORTH LONDON.—Good-class Retail and Dispensing Business, with Optical connection; in busy main road; double-fronted shop, very well fitted and stocked; returns approximately £2,500, of which about £100 is from Optical—scope for increase; chartered accountant's figures; rent £150; sublet 25s. weekly; genuine reason for sale; further particulars to *bona fide* purchasers.

3.—ESSEX (Suburban).—Good Middle-class Retail and Dispensing Business; returns last year under management £1,720; single-fronted shop, well fitted and stocked; new lease will be granted at £100 per annum, or property can be purchased; terms, £400 for goodwill, plus stock and fixtures at valuation; about £1,150 in all.

4.—BALHAM (near).—General Retail Business with N.H.I. over 10,000 per annum; established many years; returns last year approached £2,700 with gross profit £900; double-fronted shop in main road; stock and fixtures worth about £1,300; new lease at £80, or property can be purchased; valuation terms entertained.

5.—TOTTENHAM.—Cash Retail and Dispensing Business; returns present rate approximately £30 weekly; double-fronted corner shop in main road; increasing turnover; rent £120 per annum; sublet 30s. weekly, which leaves small living accommodation; price asked £850 or valuation terms.

6.—SURREY.—Cash Retail and Dispensing Business, with Kodak Agency; established 50 years; returns about £2,000 at good prices; double-fronted shop, very well stocked; large house; rent £100 per annum; 16 years' lease unexpired; price £1,450.

7.—LONDON, E.C.—General Retail and Prescribing Business; returns last year £1,736, with gross profit 43 per cent.; scope for increase under personal supervision; excellent fittings and good stock; rent £200 per annum, inclusive of rates; renewable lease; City hours; price £1,100, approximately the value of stock and fixtures.

8.—KENT (Seaside).—Neglected Business; returns last year £1,063; scope for increase in the hands of a young man; double-fronted shop, well situated in main road; six living rooms and private entrance; new lease at £80 or property can be purchased; price £950 or valuation terms entertained; vendor retiring.

9.—SOUTH COAST HEALTH RESORT.—Good-class Retail and Dispensing Business with increasing turnover, last year being about £2,450; modern double-fronted shop attractively fitted and well stocked; good living accommodation, with garden; rent £125 per annum; option to purchase property; 12 years' lease unexpired; price asked £2,250 or valuation terms.

10.—SURREY (Good-class Town).—Good Middle-class Retail and Dispensing Business; increasing turnover, last year being £2,037; this year shows a large increase; gross profit 40 per cent.; double-fronted shop in main road; flat with bathroom over; private entrance; rent £160; 26 years' lease; terms, valuation of stock and fixtures plus an agreed sum for goodwill.

11.—MIDLANDS.—Medium and Working-class Business with Rexall and Ucal Agencies; N.H.I. about £24 per month; returns last year under management £1,700, with gross profit £897 and net, after paying manager, £284; Chartered Accountants' figures; double-fronted shop in semi-main road; rent £90; held on lease; price £1,200 or valuation terms entertained.

12.—CARMARTHENSHIRE.—Old-established Mixed Retail Business for disposal; returns last year £3,400; good living accommodation, bathroom and garage; vendor owns the property and wishes to sell same for £1,600; price of business about £1,500, the approximate value of stock and fixtures; the vendor wishes to sell forthwith and will no doubt meet a purchaser reasonably.

13.—WEST OF ENGLAND.—Quick Cash Retail Business, with side line; returns last year exceeded £2,200; scope for Optical; double-fronted shop in shopping centre; stock and fixtures worth about £900; flat over shop; price asked £1,400 or valuation terms entertained; the property must also be purchased.

14.—HAMPSHIRE.—General Retail Business with little N.H.I.; no photography; returns last year £1,250; vendor states net profit to be one-third; double-fronted shop in semi-main road, well fitted and stocked; rent £100 per annum; lease about 16 years unexpired; price £750 or near offer.

Chemists' Transfers, Valuations for Sale, Stocktaking & Probate

Special Terms for Income Tax Valuations and Preparation of Accounts by Qualified Accountants.

B E R D O E & C O		
41 ARCYLE SQ. KING'S CROSS, W.C.1		
ONE MINUTE FROM KING'S CROSS AND ST. PANCRAZ STATIONS.		
PHONE TERMINUS 3574	Charles Berdoe and Thomas Berdoe	ESTABLISHED 1870

1.—MIDLANDS.—(Death vacancy). Busy Middle-class Cash Business in same hands many years; returns last year £1,329; good profits; books audited; low rent spacious shop with living accommodation; price £1,100 or near offer.

2.—SUSSEX COAST.—Good-class Dispensing and Photographic Business; pleasantly situated on sea front; returns average £1,200; no immediate opposition; nice house and garden; own freehold for sale with Business; further details on application.

3.—SOUTH COAST.—Old-established Good-class Retail and Dispensing Business; returns under manager £1,750, capable of much increase; lock-up shop, fine position, well fitted and stocked; price £1,150.

4.—EASTERN COUNTY.—Sound Light Cash Retail, in populous part of large town; returns last year £1,553; low expenses, easily worked; lock-up shop, neatly fitted and well stocked; price £800.

5.—SURREY (Suburb).—Middle-class Cash Retail; increasing; returns about £1,550; attractive modern fitted shop, with house; splendid position; good stock; price about £950.

6.—SURREY.—High-class Business in best position of riverside town; returns last year over £2,000, at good profits, steadily increasing; handsome modern pharmacy, with excellent flat over; long lease; price valuation, plus reasonable goodwill; personally recommended.

7.—READING (Near).—Light Country Retail, pleasantly situated; returns over £900 last year; modern shop and house with large garden; one other chemist; price valuation, about £500.

8.—ESSEX COAST.—Well-established Drug Store, main road position; returns about £800; owner leaving trade; good house attached; rent £70 on lease; double-fronted shop, fairly well stocked; price only £225.

9.—LONDON, S.W.—Good-class Family Retail; quite unopposed; sub-post office attached; returns over £1,900; easily worked; flat over; fully stocked; price £1,300 or near offer.

10.—LONDON, W.—Old-established Suburban Retail; in busy main road; turnover last three years average £1,900, present returns less; good profits; price £1,000.

Special Notice.

BUSINESSES WANTED.

Having successfully negotiated the sale of several businesses lately, we are urgently in need of sound concerns in all parts, and particularly in LONDON SUBURBS, HOME COUNTIES, SOUTH COAST, MIDLANDS and WEST OF ENGLAND. We also require three or four good class businesses returning from £4,000 to £10,000 a year, private clients waiting with cash available, and prepared to take over immediately. Correspondence cordially invited from intending Vendors, which will be treated in the strictest confidence.

SALE, PROBATE AND STOCKTAKING VALUATIONS PERSONALLY CONDUCTED BY PRINCIPALS.
SPECIAL LOW RATES FOR STOCKTAKING AND PROBATE.

Ernest J. George **Sentinel House, Southampton Row, W.C.1** Telephone: Holborn 9200
Tudor House, Walsall Telephone: Walsall 3774
Telegraph: "Earnest, Walsall"

Prospective purchasers of businesses (all descriptions) are invited to communicate with the full assurance that all confidences will be strictly observed. Service and Assistance rendered without obligation or expense.

The following businesses have in the main been visited, and are recommended to appropriate would-be purchasers.

(C1) EASTERN COUNTY.—A very old-established departmental business, including pharmacy and toilet departments, is offered for sale; present turnover £6,000/£7,000 per annum, with very good scope for increase; net rental £250 per annum plus rates; as an alternative to out-and-out purchase, the controlling interest in the business can be acquired for approximately £3,000; further particulars will be forwarded to genuine *bona fide* applicants upon production of Bankers' or other satisfactory references.

(C2) DURHAM.—Old-established pharmacy (lock-up), situated in leading position of small market town; average returns upwards of £3,000 per annum; rent £92 ros., less sub-let, £80; lease, 17½ years unexpired; price asked for lease and goodwill £500, stock and fixtures by valuation or by agreement (total estimated at £1,800).

(C3) LONDON (Outer Western Suburb).—Old-established pharmacy, situated in busy main shopping thoroughfare; average returns approximately £2,400 per annum, with high percentage gross profits, mainly due to the sale of proprietary lines, etc., the demand for which is considerable, and steadily increasing; good living accommodation; reason for disposal, owing to retirement; further particulars will be forwarded to genuine *bona fide* enquirers upon application.

(C4) KENT (Near London).—Pharmacy (lock-up) prominently situated in small suburban town; average returns for past three years approximately £2,300 per annum. The overhead expenses are high, but the proposition offers excellent scope for considerable further increase; purchase price asked £1,500; offers considered.

(C5) LIVERPOOL.—City business in commanding position, capable of showing an excellent net income to an owner-proprietor; present returns £35-£40 weekly; high percentage gross profit; reasonable overheads; no near opposition; purchase price £950, including stock and fixtures estimated at £800; exceptional opportunity for chemist adapted to, and desirous of acquiring, a business of this type; audited figures available, and every facility granted for personal investigation.

(C6) LONDON SUBURB.—Old-established retail pharmacy with sub-post office and good living accommodation; average returns for past three years approximately £1,950 per annum; no near opposition nor possibility of any in the future; business situated in good-class residential area; purchase price approximately £1,300.

(C7) LIVERPOOL.—Old-established pharmacy, offering excellent scope for further development; returns for last financial year approximately £1,950; net profit to owner-proprietor upwards of £500; good-class private dispensing, which is capable of definite increase; rent £77

per annum, including living accommodation; purchase price £1,100 or near offer; further particulars in strict confidence to genuine prospective purchasers.

(C8) LONDON, S.E. (Outer Suburb).—Good cash business situated in busy semi-main street; average returns for past three years approximately £1,800 per annum; good N.H.I.; rent £90, including living accommodation, at present sub-let for £52 per annum; purchase price for quick sale, £750 or near offer; certified figures available to support returns, etc.

(C9) BERKSHIRE.—Old-established Chemist-Optical business, with living accommodation; very low rent which is more than covered by sub-letting; premises well fitted, and situated in semi-main shopping street; the business is well recommended to a gentleman possessing the dual qualifications, as the Optical department and future prospects in that direction are considerable.

(C10) SUFFOLK COAST.—Unopposed business with living accommodation, for disposal together with freehold property, at a reasonable figure; present returns approximately £1,200 per annum, with genuine scope for increase if full possibilities are exploited; the business has recently been valued, and authentic figures are therefore available as a basis for negotiation; net profits for last financial year approximately £350. Further particulars will be forwarded in strict confidence to *bona fide* applicants.

(C11) ROMFORD (NEAR).—Recently-established pharmacy situated in good-class growing district; present returns upwards of £20 weekly; living accommodation with garden; good scope for further increase; rent £100; long lease; purchase price £400 or near offer.

(C12) LONDON, S.E.—Pharmacy (lock-up) centrally situated, near to leading railway termini; valuable connection with medical students, etc.; returns average upwards of £26 weekly; rent, inclusive of rates, £58 per annum; good reasons for disposal; purchase price £500, or near offer, including stock approximately £225.

(C13) BLACKPOOL (NEAR).—Pharmacy with good living accommodation, for disposal owing to domestic circumstances; average returns approximately £1,200 per annum, with good scope for further increase; no near opposition; reasonable rental and purchase price; this business has been personally visited, and is well recommended.

(C14) BEDFORDSHIRE. Country pharmacy with small optical connection; returns for last financial year upwards of £1,700, with net profit approximately £400; rent, £50 per annum; living accommodation available if required; further particulars in confidence to *bona fide* prospective purchasers.

COMPREHENSIVE VALUATION SERVICE FOR ALL REQUIREMENTS.

THE ASSOCIATION OF MANUFACTURING CHEMISTS, LIMITED
 (Business Agency, Transfer & Valuation Department)
 KIMBERLEY HOUSE, and at EXCHANGE CHAMBERS,
 Holborn Viaduct, LONDON, E.C.1 2 Bixteth St., LIVERPOOL
PARKIN S. BOOTH, Valuer. Tels.: CITY 1261-2-3-4
VALUATIONS. SALES OF BUSINESSES. STOCKTAKINGS.
Enquiries Invited.

For and EXPERT STOCKTAKING and TRANSFER VALUATIONS
THOS. TOMLINSON & SONS CHEMISTS' VALUERS, etc.
 46 VICTORIA STREET (opposite Woolleys) MANCHESTER
 Telegrams: "Tomtom" Phone: Marple 332
 and at 44 Fargate, Sheffield
RECOMMENDED BY ALL THE LEADING WHOLESALE HOUSES
LOW RATES ENQUIRIES STRICTLY CONFIDENTIAL

BUSINESSES FOR DISPOSAL.

6s. for 50 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

BLACKPOOL.—Old-established Chemist's Business for disposal as a going concern; situate main thoroughfare; stock approximately £1,000 at cost; fixtures and fittings £436. Further particulars as to rent, turnover, &c., can be obtained on application to Parkin S. Booth, 2 Bixteth Street, Liverpool, or Frank C. Darwell, 14 Edward Street, Blackpool.

BLACKPOOL.—Well-established Chemist's Business; suitable for Qualified Chemist with capital of £450 desiring to be his own master, with security of tenure, satisfied at first with an income of £250 after paying rent and rates for shop and private house adjoining. 392/39, Office of this Paper.

FINCHLEY.—Main-road position; Well-fitted Shop; established business doing medium to high-class trade; turnover £1,200 p.a.; every prospect for increase; genuine personal reasons for selling; long lease; stock approximately £450; exceptionally low price of £850 all at for immediate sale; first deposit secures. Principals only write P.C.B. 69/30, Office of this Paper.

LANCASHIRE CITY.—£200; Drug Store; no near opposition; densely populated; large scope for N.H.I. and Optics (near 4 doctors); good living accommodation. Apply 394/14, Office of this Paper.

LANCASHIRE RESORT.—Established Retail Pharmacy for sale. Ideally fitted and situated; returns for last three years average £1,840 per annum; fixtures and fittings and goodwill at valuation, approximately £1,000. 391/40, Office of this Paper.

LANCS.—Good-class Family Business with wine licence; Kodak and Selo Agency (nearest photo dealer 2 miles); good opening for Optics; house available or rooms on premises easily adapted for living; rent £34 per annum; rates £16; held on lease; goodwill £200; stock and fittings at valuation. 392/9, Office of this Paper.

LEICESTER.—Well-established modern Chemist in busy neighbourhood; Kodak Agency; living accommodation; long lease; rent £75 per annum; returns £1,250 per annum, with exceptionally good profits; business can be considerably increased under personal control; owner compelled to retire through ill-health; price £950. 391/37, Office of this Paper.

LONDON, BAYSWATER.—Extremely Large Double-fronted Shop; splendid mahogany fittings; room in rear (suit dentist, library, &c.); two bedrooms, large living-room, kitchen, bath, w.c.; recently redecorated throughout; electric lighting and heating; gas; trade under manager £30; scope for £100; fine position; price £350; stock at valuation, about £400. P.C.B. 69/290, Office of this Paper.

NEAR SOUTHERN SEASIDE RESORT.—Chemist's Business for sale; takings average £14-£15 per week; at present under management; scope for increase under personal supervision; double-fronted shop, well fitted, with nice flat over; value of stock and fixtures about £480; reasonable offer considered; good reason for disposal; further information to applicant sending references. 395/4, Office of this Paper.

SEACOMBE, CHESHIRE.—Old-established Chemist's Business; General Retail, Dispensing and Prescribing, Kodak, Wine and Spirit Licences; house available; present hands 7 years; accountants' figures; net profit averages £410 per annum; £850. Another, recently opened, ideal situation, huge possibilities when completed; monopoly site; excellent opportunity for qualified lady or beginner; £400. Singly or both. Quick transfers desired. 394/29, Office of this Paper.

S. F. CLARK, F.N.A.A. 'Phone: Prospect 3366
CHEMISTS' VALUER & TRANSFER AGENT
 34 Marksbury Avenue, Richmond, Surrey
 Combines with his efficient system, embracing **BUSINESS TRANSFER & VALUATIONS** for all purposes, that "personal touch" which makes the pharmacist's difficulties his own.
CONSULTATIONS ARRANGED ANYWHERE.
All communications treated confidentially.

JOHN BRIERLEY, F.N.A.A.
 VALUER, TRANSFER AGENT AND EXPERT STOCKTAKER
 135, Queen Street, Newton Heath, MANCHESTER
 "A reputation behind every transaction"
 Satisfied Pharmacists appreciate my methods of doing business. Efficient service, straightforward deals, and strict privacy guaranteed. No extortionate fees.
 "Your interests are mine" (Tel.: Failsworth 1913)

SHREWSBURY.—For Sale, owing to death of proprietor, a Well-stocked Drug, Photographic and General Stores on main road; good house attached; very low rent; average takings £15 to £20 weekly; will accept £550 for quick sale, cash down. J. Vickers, 59 Belle Vue Road, Shrewsbury.

SOUTHPORT.—Recently-opened business in good-class residential district; lock-up shop; Kodak; scope for Optics; rent and rates £34 per annum; present returns average £36 per month, but increasing; price, including stock and fixtures, £250 or near offer. 393/27, Office of this Paper.

SURREY Business for sale, Dispensing and Retail; Kodak Agency; well stocked and fitted; returns approximately £2,500 under manager; principal could do much more; gross profit £800; references required; good living accommodation; lease would be granted at reasonable rental. 391/32, Office of this Paper.

WEST LANCASHIRE INDUSTRIAL TOWN.—Very well-fitted Double-fronted Shop for sale; takings approximately £1,000 per annum, and increasing; Kodak Agency, good N.H.I.; fixtures and stock and goodwill at valuation, approximately £550, but will accept offer for quick sale. 394/3, Office of this Paper.

YORKSHIRE CITY.—Drug Store; excellent position on main road in thickly populated district; lock-up shop; rent and rates £1 per week; good scope for N.H.I. and Photography; returns low, but can be much increased by competent Qualified man; price for quick sale £250 (approximate value of stock and fixtures). Further particulars on application to 392/32, Office of this Paper.

APPROXIMATELY £400 will buy a two-thirds share in a business in North-West London; main-road position; double-fronted shop; excellent opening for Optics; situated in well-populated locality; stock and fixtures valued at £750-£800; present returns £25 weekly, which, if properly handled, would quickly be doubled; a good opportunity for a keen man with limited cash to double his capital in 12 months; it may take 12 months' hard work to pull this business together, but the results should be well worth the time and labour involved. For full particulars please write to 218/805, Office of this Paper.

DRUG and Photographic Stores, West London; lock-up shop; lease 5 years with option; very low rental of 18s. 4d. weekly; takings average £19 weekly, net profit £6 10s.; well established and good scope for live man; price £350; stock at valuation, about £200. P.C.B. 69/29, Office of this Paper.

GENUINE Business, good-class; turnover £2,000-£2,500, rapidly increasing; long valuable lease; good modern premises, with very convenient living accommodation; in centre of main street of Surrey town; offered at a bargain price to a genuine business man; no communication unless trade and bank references received; immediate. 394/22, Office of this Paper.

TWO Good Businesses for sale (Kent, 15 miles from Charing Cross and London S.E.); returns about £3,000 and £1,900; good profits; low rentals; property can be purchased or lease granted for one; other lease 13 years to run; together or separately; splendidly stocked; price £2,000 and £1,600. 391/18, Office of this Paper.

£300 OR NEAR OFFER, Leeds.—Old-established Chemist's, industrial suburb; neglected through ill-health; rent and rates £43; scope for development; very suitable for young man; three stock rooms; average returns for last three years £743, including N.H.I. £230; vendor ill; must be sold. Marsden, Chemists' Valuer, 29 Oakwell Crescent, Leeds.

£200 PLUS stock at valuation, approx. £150; here is your opportunity to purchase an excellent little business if you are a Qualified Chemist; rent £75 per annum inclusive; lease 13 years; two rooms and kitchen; turnover £60 per month, rapidly increasing; mixed class trade; Brighton district. 393/35, Office of this Paper.

£225 ALL AT, or near offer, will purchase a nice little Lock-up Pharmacy and Drug Store situated in one of London's busiest thoroughfares; profits lately £8 per week, which could be increased by an energetic man; valuable lease of nearly 5 years at low rental of 27s. 6d. per week inclusive; suit beginner or unqualified man; owner purchased premises for manufacturing. Phone New Cross 0748, or write 38 Westover Road, Wandsworth Common, S.W.

£125.—London, Notting Hill district; very low price to ensure quick sale; small business, suitable Chemist or Drug Store; established 5 years; low rent; lock-up shop; living rooms near if required; 3 years' tenant's agreement could be arranged. 394/30, Office of this Paper.

BUSINESSES WANTED.

6s. for 50 words or less ; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

BIRMINGHAM Suburbs.—A Drug Store required, good premises essential, where Photography could be added to advantage; neglected business considered if plenty of scope for increase. Particulars to 26 Osborn Road, Sparkbrook, Birmingham.

LONDON, S.E.—Drug Stores required, suitable unqualified, showing returns £30 to £40 weekly, with good net profits; capital available £500 to £700; must bear strictest investigation; please send particulars in confidence to 391/30, Office of this Paper.

CHEMIST, with capital of £2,500 to £3,000, requires Good-class Business in London or Home Counties; must bear every investigation. Apply Orridge & Co., 56 Ludgate Hill, E.C.4.

GENUINE Business wanted, London, Midlands or the South; capital about £1,000; principals only. 392/31, Office of this Paper.

GENUINE Business wanted, South-West England preferred; house and garden essential; low overhead charges; capital up to £2,000; full particulars treated with strict confidence. 392/35, Office of this Paper.

PRIVATE Pharmacist with full capital requires sound genuine business; West Riding, Yorkshire, or adjoining counties preferred; showing turnover of £20-£30 per week; living accommodation if possible; no Optics; all replies treated in confidence. 392/19, Office of this Paper.

WANTED by Pharmacist with capital, Good-class Retail Business in Southern County or Midlands returning between £5,000 and £10,000 per annum. Apply Orridge & Co., 56 Ludgate Hill, E.C.4.

PREMISES FOR SALE.

PARIS.

TO BE SOLD, a large fully-equipped factory in the Suburbs of Paris, which has been used for the manufacture of chemical products of all kinds.

Buildings, workmen's houses, and large stocks available.

Write 218/806, Office of this Paper.

TENDERS INVITED.

GUY'S HOSPITAL, S.E.1.

DRUGS AND SURGICAL DRESSINGS.

THE House Committee invite Tenders for Surgical and Antiseptic Dressings, also for Drugs, for immediate and future delivery.

A list of these, with further particulars and form of tender, may be obtained on application to the Superintendent's Office.

Tenders, duly sealed, are to be returned to the Superintendent's Office not later than March 30, 1933.

PARTNERSHIPS.

A YOUNG Chemist wishes partnership or managership where he could purchase by degrees; £7 weekly in present position; London and Provincial experience, also coast and country towns; now has complete control West End shop; free one month; £150 to £200 available. 393/38, Office of this Paper.

A DVERTISER aged 34 wishes to enter into working partnership with Qualified Chemist, either giving concern or new business; moderate capital available; London or South of England preferred; has served apprenticeship; recently returned from abroad to settle in England. Reply letter only, John Scott, 42 Oaklands Avenue, Thornton Heath, Surrey.

LEGAL NOTICE.

THE COMPANIES ACT, 1929.

-PAROS (CHEMISTS), LIMITED.

NOTICE IS HEREBY GIVEN, pursuant to Section 238 of The Companies Act, 1929, that a Meeting of the Creditors of the above-named Company will be held at Winchester House, E.C.2, on Friday, the 31st day of March, 1933, at 2.30 p.m., for the purpose, if thought fit, of nominating a Liquidator and of appointing a Committee of Inspection.

NOTICE IS HEREBY ALSO GIVEN THAT, for the purpose of voting, secured Creditors are required (unless they surrender their Security) to lodge at the Registered Office of the Company before the Meeting a Statement giving particulars of their Security, the date when it was given, and the value at which it is assessed.

Dated this 21st day of March, 1933.

H. PAROS,
Secretary.

AGENCIES.

LANCASHIRE, CHESHIRE AND NORTH WALES.—We are ready to accept one good Agency for this territory; two energetic Representatives cover all qualified Retailers and Wholesalers every six or eight weeks; average 100 calls per week; warehouse accommodation available; excellent connections; established over 50 years. 218/792, Office of this Paper.

A NEW ZEALAND Firm of Manufacturing Chemists invites correspondence with British Manufacturers (preferably those whose products are already on the New Zealand market) desiring to depute the manufacture, &c., of their goods to a reliable established firm in the Dominion; the strictest confidence will be observed. Address inquiries in first instance to "Chemicus," c/o Wright, Kerr & Co., Bevis Marks House, Bevis Marks, London, E.C.3.

A N OLD-ESTABLISHED and Reputable Firm of Manufacturing Chemists is open to negotiate with a reliable London house to handle the whole of their export business as Agents. Apply "Exports," 218/804, Office of this Paper.

SITUATIONS OPEN.

RETAIL (HOME).

6s. for 40 words or less ; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

ILFRACOMBE.—Junior Assistant wanted for Retail and Dispensing; state age, salary and experience. Reed, Chemist, Ilfracombe.

LONDON.—Assistant (about 30), qualified; good-class experience; London applicants only; no testimonials or returnable matter. State age and salary required, 393/39, Office of this Paper.

LONDON, S.W.—Assistant, Qualified, for working-class business; good Window-dresser; must be alert and not afraid of work; application by letter only, stating age, experience and salary required; salary must be moderate. Write 82 Priory Road, Hampton, Middlesex.

LYNMOUTH.—Qualified lady Assistant to manage branch for season; knowledge of Photography essential; good Window-dresser and Dispenser; references, age, salary and photo required. Broom, Chemist, Lynmouth, N. Devon.

SOUTH COAST.—Permanency, Qualified lady Assistant, M.P.S.; must have good-class Retail and Photographic experience; state full particulars first letter, experience, salary, height; applications not answered in 14 days respectfully declined. 394/13, Office of this Paper.

TORQUAY.—Qualified Assistant (male, single) required, accustomed to Dispensing business; apply giving full particulars and salary required to E. Quant Landour, Lower Woodfield Road, Torquay; applications not answered in five days respectfully declined.

A YOUNG Qualified Gentleman Assistant for good-class Dispensing and Retail; full particulars and salary required. Bone, Chislehurst, Kent.

C APABLE young lady, Qualified, to take charge of small branch in badly-hit working-class district in Midlands; shop run to seed; state salary required and any necessary particulars; all communications not answered in three days respectfully declined. 392/40, Office of this Paper.

CHEMIST-OPTICIAN, fully Qualified, required at once; under 30; for a medium business in London. Apply Delta, 394/390, Office of this Paper.

JUNIOR or Improver (male; about 21) for South London district; must have served regular Apprenticeship and have good knowledge of Photographic dealing; time for study could be arranged; state age, height, details of experience and salary required. 393/23, Office of this Paper.

LADY, Qualified Assistant, for country town; state age, height and salary required; photo if convenient, and say when at liberty. Phillips, Chemist, Craven Arms, Shropshire.

LADY, Qualified, for small branch; experience in Counter work, Toilets and Photographic sales essential; salary £2 10s. per week; state age, height and experience. 389/39, Office of this Paper.

MANAGER, Qualified, for small West End Branch; salary £4 per week, with share of profits; good prospects for man able and willing to work up old-established business. Apply Boutalls, Ltd., 150 Southampton Row, W.C.1.

MANAGER Wanted.—Just opening Branch in new Suburb, working-class chiefly; state salary; must be moderate; commission; full particulars of experience, references, when disengaged, in first letter; modern house attached; photo. Williams, Chemist, Horfield, Bristol.

PHARMACY.—Required, Qualified Locum, to act as Manager's relief, from May 15 to June 17. Apply in writing, stating age, experience and salary required, to the Staff Manager, Royal Arsenal Co-operative Society, Ltd., 148 Powis Street, Woolwich, S.E.18. Endorse envelope "Pharmacy." NOTE.—Canvassing of members of the General Committee or Officials will disqualify.

QUALIFIED Assistant (male); good Dispenser and Salesman, with practical knowledge of Photography, including D. & P.; state age, salary and references; letters not answered in 4 days respectfully declined. Hall, 97 High Street, Maidenhead.

QUALIFIED Assistant; good appearance and address; languages and West End experience an advantage. Also Lady Assistant; tall, smart appearance; experienced Saleswoman and Window-dresser; qualification not essential. Apply by letter only, The Superintendent, 34 Osnaburgh Street, N.W.1.

QUALIFIED Assistant, male, wanted; must be an accurate Dispenser and accustomed to quick Counter trade. Apply, stating age, experience, salary required, to Head Office, Wm. Fox & Sons, Ltd., 109, 111, 113 Bethnal Green Road, London, E.2 (ten minutes from Liverpool Street).

QUALIFIED Chemist (lady or gent), young, with good all-round experience; moderate salary to start; preference to one living in London; knowledge of Optics an advantage. Apply "Contract," 394/39, Office of this Paper.

QUALIFIED permanent Assistant, age 25-35, required for good-class country business. Apply, stating experience, reference and salary required, to Pechey, High Street, Maldon, Essex.

UNQUALIFIED Assistant wanted, gentleman, single, good appearance; good Salesman, Dispenser, Window-dresser; good knowledge of Photography; permanency for the right man. Apply personally, Manager, Durbins, Chemists, The Broadway, Ealing, 10.30 to 11.30, or by appointment after business hours.

UNQUALIFIED, for high-class seaside resort; knowledge of all branches of Photography absolutely essential. Applications unanswered within 7 days respectfully declined. 218/801, Office of this Paper.

WANTED.—Fully Qualified Optician-Chemist as Chief Assistant. Applications, stating age, wage, experience and qualifications, to be by letter and addressed to the Halifax Industrial Society, Ltd., North Parade, Halifax. Applications to be in by first post Tuesday, April 4, and endorsed "Optician-Chemist."

WANTED, Qualified lady Dispenser for Doctors' Surgery. Apply, with copies of testimonials, to Drs. Nash, Birks and Nash, 2 Harpur Place, Bedford.

WANTED, smart Qualified Lady Assistant; capable Dispenser and Saleswoman; must have pleasing manner and be quick and attentive to customers. Send full particulars of age, experience and salary required, which must be moderate; enclose photograph, to be returned, to Dyson, Chemist, 360 Upper Richmond Road, East Sheen, S.W.14.

WHOLESALE.

LONDON Wholesale Drug House require a Representative with connection in South Wales; good knowledge of the trade essential. Write 218/799, Office of this Paper.

A WHOLESALE Manufacturing firm in the Midlands require a competent Pill and Tablet Maker; must thoroughly understand the complete process of their manufacture, be able to work out own quantities, and generally supervise the Department. Apply, giving full particulars of past and present employment, age, and wages expected, to 393/2, Office of this Paper.

DRUGGIST Sundries and Packed Toilet Preparations.—Manchester House requires Representative for Lancashire and Yorkshire; salary, commission and expenses. Reply stating ground covered and connection with Chemists and Hairdressers. 218/803, Office of this Paper.

MANUFACTURING Chemists wish to appoint first-class Representatives in Yorkshire and Lancashire on commission for a British Fly Spray, which has already proved highly successful in other districts. Exclusive territory for Salesmen with connection amongst Chemists and Druggists, &c. Address, with ground covered and full particulars, 392/28, Office of this Paper.

CONTINENTAL POSITION.

Old established company manufacturing high grade **PHARMACEUTICAL SPECIALITIES** requires for head office (Continent) a **MAN of GOOD EDUCATION** (pharmaceutical and/or scientific an asset). Age 30 to 36. Must be reliable, accurate, systematic, capable to act on own initiative and of being developed for **EXECUTIVE POSITION**. Perfect knowledge of the English language indispensable and sufficient German to understand printed texts.

PERMANENT RESPONSIBLE POSITION.

Apply, giving full particulars of experience, age, references, copies of testimonials and photograph (will be returned) 218/794.

MEDICAL Representative for London, possessing sound therapeutical knowledge, for calling on Doctors. Write full particulars, qualifications, &c., 218/798, Office of this Paper.

REPRESENTATIVE required for London area by a leading London Drug House; must have experience of the trade. Write 218/800, Office of this Paper.

REPRESENTATIVES required in the following centres: London (2), Liverpool, Manchester, Birmingham, Leeds, Norwich, Bristol, Plymouth, Cardiff, Bath, Newcastle-on-Tyne, Hull, Glasgow and Edinburgh. Applicants must be resident in these districts and have a sound connection with Hospitals, Public Institutions, &c. Remuneration on generous commission basis. Pocket samples which will not interfere with other products. Every application will be treated in strictest confidence. Write "Ulster," 218/796, Office of this Paper.

TRAVELLER for Bath Crystals and Perfumery; must have live connection London Stores and Wholesale. Write full particulars. P.C.B. 69/27, Office of this Paper.

COLONIAL, INDIAN AND FOREIGN.

EXPORT Druggists require experienced Representative for India, Burma and Ceylon; must have thorough knowledge of the trade, preferably with previous experience of these markets; good salary and commission. Apply in strict confidence, stating age, previous experience, &c. 218/802, Office of this Paper.

SITUATIONS WANTED.

RETAIL (HOME).

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

A.A.A.A.A.—**QUALIFIED** (25), requires post; quick and active Dispenser; good Counter, Photographic and Window-dressing experience; energetic, courteous. Chemist, Constitutional Club, Weston-super-Mare.

A.A.A.A.—**PHARMIST** (24), tall, London and Provincial experience, desires post London or country; interview or photograph and particulars. Apply, Green, 27 Grantham Road, Stockwell, S.W.9.

A.A.A.A.—**SCOT**, M.P.S. (25); good business and Pharmaceutical knowledge all branches; D. & P.; present manager London; desires change, Wholesale or Retail. 392/14, Office of this Paper.

A.A.—**ASSISTANT** (20), 5 years' experience; quick Dispenser; permanency; London preferred; disengaged.—K., 47 Aldbourne Road, W.12.

A.A.—**QUALIFIED Chemist-Optician** (23) requires permanency as Assistant or Manager, South Wales preferred; good references; moderate salary. Apply, R. Jones, 20 Colum Road, Cardiff.

A.—**QUALIFIED Chemist-Optician**, F.B.O.A., J.C.Q.O. (27), unmarried, desires position Manager or Assistant; accurate Dispenser, Counterman, Window-dresser; good refractionist; excellent references; locums accepted. 22 George Street, Manchester, 8.

A **CAPABLE** lady Assistant; 6 years' first-class town and seaside experience, Toilets, Patents, Photographic, Windows; disengaged. 393/4, Office of this Paper.

A **CAPABLE** Scot (24), Qualified; tall, well educated; 8 years' excellent experience as Manager and Assistant; reliable references; free now; interview or write; coast, provinces or outskirts. 393/12, Office of this Paper.

A CAPABLE Young Lady Assistant requires responsible position, preferably in privately-owned Pharmacy; experienced Toilets, Photographic, Patents; excellent Saleswoman and expert Window-dresser. 389/14, Office of this Paper.

A QUALIFIED Chemist (25) seeks position; good Dispensing and Counter experience; knowledge of Photography; free after March 25. "W. W.," 97 Long Street, Atherstone, Warwickshire.

A QUALIFIED Experienced Manager, disengaged; permanency or Locum, London or Suburbs; moderate salary. Davies, 109 Alexandra Drive, Surbiton, Surrey.

A S Locum or otherwise, accustomed to Oil and Colours; fairly aged. Langbourne, 25 Stafford Street, Wolverhampton.

A SSISTANT (26), unqualified; good appearance; West End Dispensing experience, Counter, Windows; desires position in good-class business, London preferred; one month. Rowe, 2A Westmoreland Road, S.E.17.

A SSISTANT (28), unqualified; tall; 14 years' Retail experience; quick and accurate dispenser; excellent Counterman, Window-dresser; well recommended. Hughes, 104 Camberwell New Road, S.E.5.

A SSISTANT, Qualified; married; excellent Dispensing and Counter experience; London or Suburbs. Redman, 28 England's Lane, N.W.3.

A SSISTANT (30), unqualified; good experience Dispensing, Counter and Photographic; good references. Groves, 39 Carlton Street, N.W.5.

A SSISTANT (24); Qualified; 6 years' experience in good-class businesses; excellent references; disengaged. D. S. Evans, 29 Wolsley Road, Crouch End, N.8

A SSISTANT (45); Unqualified; married; good all-round experience; last position 23 years. Blackbird, c/o Chemist, Wilton near Salisbury.

A SSISTANT (26); Unqualified; free April 23; requires plenty of work; 11 years London, Midlands; Dispensing, Counter, Photographic; permanency. 393/20, Office of this Paper.

A SSISTANT (22), Part I pending; first-class business and college training; reliable Dispenser; references; Wholesale or Retail. Randwick, Pannal Ash Road, Harrogate.

A SSISTANT (25); 9 years' experience Counter, Photographics, Dispensing; disengaged Easter. Evans, "Pickwick," Gurney Court Road, St. Albans.

A SSISTANT, unqualified (24); first-class Counterman, Window-dresser; 8½ years' experience London and Provinces; excellent references; seeks position London, preferably S.W., but not essential. Mayne, 60 South Side, S.W.4.

A GE 36, Qualified Manager; 20 years' all-round experience, 10 years managing; expert Window-dresser, good Prescriber, rapid Dispenser, good Stock-keeper and Buyer, keen Salesman; permanency; London or South; free March 25. Chemist, 1 Selwood Road, Hook, Surrey.

BIRMINGHAM District.—Qualified lady (24), Surgery and Retail experience; desires post with Doctor or Chemist; excellent references. 392/26, Office of this Paper.

BRANCH Manager, qualified; successful record; thoroughly recommended; disposal terminating present engagement (3 years). "Selo," 40 Greenwrythe Lane, Carshalton, Surrey.

CHEMIST, Qualified (44), thorough experience all departments, London and Country; married; good references; could get early release. 394/24, Office of this Paper.

DOCTOR'S Dispenser, Lady (Hall) requires post or part-time London; salary moderate. 134 King Henry's Road, Hampstead.

DRUG Store Manager; middle age; experienced Prescriber; present situation 2 years; disengaged shortly; personal interview; London or suburbs. B., 49 Wordsworth Avenue, East Ham, E.

F.B.O.A. J.C.Q.O. (27), attended Refraction Hospital; experienced in Photography; managed D. & P. Dept.; 12 years' Pharmaceutical experience. 392/21, Office of this Paper.

FRENCHMAN (19), had three years' Dispensing experience in France, requires post; will give services in return for board and lodging. Apply Clark, 12 Richmond Road, W.2.

GENTLEMANLY Unqualified Assistant requires situation; up-to-date experience in all departments; exceptional references from good firms. "Trustworthy," 393/34, Office of this Paper.

JUNIOR (21) desires position; good appearance; excellent Counter and Dispensing experience. Walker, 180 Huddersfield Road, New Hey, Rochdale, Lancashire.

JUNIOR (19); West End experience; excellent references; tall and smart. Carter, 119 Mercers Road, Tufnell Park, N.19.

LADY Dispenser-Bookkeeper, Hall Certificate, seeks post with Doctor, Hospital or Chemist; experienced N.H.I. and Counter. Cherrill, 55 Waylen Street, Reading.

LADY (29) desires post; 12 years' first-class experience Toilet, Proprietaries, Photo; expert Window-dresser. 391/36, Office of this Paper.

LADY Assistant; capable Counter Hand, Dispenser and Stock-keeper; excellent references. "D.," 403 Romford Road, Forest Gate, E.7.

LADY, capable, unqualified, over 12 years' experience Counter and Dispensing; retail pharmacy or doctor; London or suburbs preferred. Robinson, 133 High Street, Beckenham, Kent.

LADY M.P.S., keen Counter worker, desires position; quick Dispenser, Photography, Display; good references. 116 Kensington Park Road, Kensington.

LADY Dispenser, qualified (Hall), requires post with Doctor in London; experienced in N.H.I. work. Samuels, 156 Elgin Avenue, W.

LADY Dispenser (Hall) requires post immediately with Doctor, Chemist or Institution; country preferred. Isemonger, 26 Castlemain Avenue, West Southbourne, Hants.

LADY (25), unqualified, good all-round experience. D. M., 36 Longstone Avenue, Harlesden, N.W.10.

LADY, Qualified, disengaged, seeks post; excellent references and experience Hospital and Retail. Reference 623, 77 Oxford Street, Manchester.

LOCUM, M.P.S.; April 10-June 10; thoroughly experienced; trustworthy. Frank Rundle, 37 Biddulph Mansions, W.9.

LOCUM (40), unqualified, tall; all-round experience Counter, Dispensing, &c.; abstainer; now disengaged. Alexander, 189 Southampton Street, S.E.5.

LOCUM, Easter Vacation, March 29 to April 22, wanted by Student qual. exam.; W.E. experience; Lancashire preferred. "Chemicus," Manchester University Union.

LOCUM or Permanent, Ph.C., elderly, male; Portsmouth or near preferred. Hayward, 92 Waverley Road, Southsea, Hants.

M.P.S. F.B.O.A. (31), Manager 8 years; technical school education, knowledge of French, high-class Dispensing, Counter, &c., expert Photographer, outstanding personality and business acumen; desires lucrative post in West End or City, where first-class man would be appreciated; situation with view to succession or purchase would be entertained. "Chemist," 64A Lord Roberts Avenue, Leigh-on-Sea, Essex.

M.P.S.—ALL-ROUND thorough business man, with exceptional experience of management and knowledge of everything Pharmaceutical; keen Salesman and business builder; wants responsible permanent management; at liberty now. Square, 394/34, Office of this Paper.

M.P.S. (24), disengaged, seeks post as Manager or Assistant; capable, energetic and trustworthy; all-round knowledge; college double medalist; excellent references; moderate salary. Chemist, 25 Hampstead Road, Nottingham.

MR. R. B. FAIRWEATHER has vacant for Holiday relief, May and June. Communicate 286 Kingsland Road, E.8.

MR. F. H. WEBBER, M.P.S., can confidently recommend a capable Lady Assistant for post, preferably in privately-owned pharmacy; 9 years' experience in Toilet, Photo and Counter business; good Window-dresser and Saleswoman; excellent references; free any time. A. B., c/o Rossiers, Bampton Street, Tiverton.

MANAGER, Drug Stores, or unqualified Assistant; 17 years one post; excellent references. R. Slee, 106 Fifth Avenue, W.10.

MANAGER or Senior, Qualified (26); tall; 9 years' first-class experience and references; seeks permanency; moderate salary; contemplating marriage; would prefer living accommodation; proficient Dispensing, Salesmanship, Display, Photography. 394/40, Office of this Paper.

OPTICS.—Qualified Chemist and Optician (25) (F.S.M.C.) seeks permanency; 7 years' experience. Pritchard, 41 London Street, Reading.

PART-TIME; young Qualified Chemist, free all day Fridays, Saturdays and other mornings; varied experience; London S.W. district essential. "Clyconia," 17 Ansell Road, S.W.17.

PHARMACIST, now Disengaged; male (25); Photography, Dispensing, Counter experience; West End; good references. Rooke, 104 Clapham Road, S.W.9.

PHARMACIST, experienced, own business 14 years, free afternoons and evenings, desires locum, part-time engagements; Liverpool or near essential. Chemicus, 8 Eardisley Road, Mossley Hill, Liverpool.

PHARMACIST, ex-proprietor, open for position of responsibility where initiative, staff control and organisation is required; thorough knowledge of the Drug Trade, also some experience of company law, accountancy and finance. "Progressive," 392/34, Office of this Paper.

QUALIFIED lady (30), 14 years' experience, desires situation near Golder's Green; moderate salary; disengaged. 395/5, Office of this Paper.

QUALIFIED (27) requires situation as Locum, Assistant or Branch Manager; sound experience all branches. 15 Clapton Road, E.5.

QUALIFIED (25); Manager or Assistant; high-class Dispensing, Counter, Photographics, Toilets; single. Bell, 30 King Edward Road, Bath.

QUALIFIED (24), tall, efficient and thorough in all branches; London and Provincial experience; trustworthy and conscientious, pleasing personality; sound references. Pharmacist, 70 Fentiman Road, S.W.8.

QUALIFIED (45), single; experienced Manager and Dispenser; reliable, trustworthy; will manage small business for £4 weekly; or as Dispenser, £3 10s. weekly; or short hour engagement, £2 10s. weekly; disengaged as required; indoors if convenient. Chemist, 6 Guthrie Street, S.W.3.

QUALIFIED (23); locum, or permanency (preferably); capable Dispenser, Counter, Photographic; conscientious; Optics. Ross, 17 Iderton Road, S.E.16.

STATIM (39), unqualified, married, height 5 ft. 9½ in.; first-class and general experience all branches; permanency preferred, or locum anywhere; disengaged; excellent references. Dillon, 117 Mansfield Road, Hampstead.

SUFFOLK.—Young lady Dispenser; Hall Certificate; 2 years' experience, requires post with Doctor or Chemist. 391/33, Office of this Paper.

UNQUALIFIED (32), married; permanent, present situation 12 years; change through death; all-round experience, Counter, Dispensing, &c.; free for interview. Powell, 118 Beaver Road, Ashford, Kent.

UNQUALIFIED (32), Lady, capable Dispenser, Bookkeeper, Counter hand, expert knowledge Photography, requires post London or Suburbs; excellent references. 394/28, Office of this Paper.

£3 WEEKLY, Outdoors; Qualified high-class provincial and West End experience; steady, reliable, good Dispenser; excellent references; disengaged. 394/7, Office of this Paper.

WHOLESALE.

A GOOD Salesman; conscientious worker; established connection Chemists, Hairdressers Southern Eastern Counties; requires additional commission with part expenses; opportunity established House lessen travelling costs. Bonny, Rosemount, Wallington.

ADVERTISER, for 12 years Works Manager to Manufacturer of one of the largest Proprietary products, seeks position with Manufacturing Chemists. P.C.B. 69/21, Office of this Paper.

EXPERIENCED Energetic Traveller; disengaged at end of month; many years' established connection Hairdressers, Chemists and Stores all over the country; Wholesale and Retail; own car. 395/15, Office of this Paper.

MEDICAL REPRESENTATIVE.—Qualified Pharmacist (27); thoroughly experienced; requisite personality; smart appearance, well educated; knowledge Therapeutics and Medical products; known to Doctors West End and South Coast; resident London; disengaged. 394/4, Office of this Paper.

PACKED Goods, Proprietary Specialities, Patents, &c.—Advertiser (31) desires post where sound business experience, Costing, Buying, Production Supervision, Despatch will be of service; good record; highest references. 395/8, Office of this Paper.

POSITION Required on Sales Staff of reputable firm by keen, ambitious, well-educated young man (36); 20 years' Pharmaceutical experience; highest credentials; personal interview; disengaged. P.C.B. 69/28, Office of this Paper.

REPRESENTATIVE, Beginner, requires berth with any Reputable House, Eastern Counties preferred; 14 years' experience in Retail Pharmacy; first-class references; age 28 years; height 6 ft. 3 in.; gentlemanly appearance; can drive car well. 394/17, Office of this Paper.

REPRESENTATIVE, 10 years' connection in London and South of England, keen, energetic, reliable Salesman; Perfumery and Toilets; Proprietary Medicines, &c., desires to represent house of repute. 392/36, Office of this Paper.

WORKS Chemist (Laboratory Manager) seeks engagement. F.C.S., M.P.S., "West Vile," Rawdon, Leeds.

FOR SALE.

(Articles to the value of £5-£50.)

AUTOWAY Personal Weighing Machine (Dial Face Model), cost £30, perfect working order and condition; nearest offer to £10 secures. 395/9, Office of this Paper.

MISCELLANEOUS.

A BARGAIN lot of Showcases, excellent condition, ready for use; two 4 ft. mahogany sliding door wall cases £12 each; 10 ft. mahogany counter with glass cases in front £14; 6 ft. all glass counter with parquet bottom and glass shelf £9 10s.; two Silent Salesmen, 2 ft. 6 in. high by 1 ft. 6 in. by 1 ft. 4 in., each with two glass shelves, 60s. each; many other bargains. PHILIP JOSEPHS & SONS, LTD., 90-92 St. John Street, Clerkenwell, London, E.C.1.

CHEMISTS' FITTINGS.—We hold an immense stock of Drug Fittings, Dispensing Screens, Glass Fronted Counters, Perfumery Cases, Nests of Drawers, Wall Cases, Silent Salesmen, Upright and Flat Counter Cases, Plate-glass Counters, Cash Tills, Display Stands and Glass Shelves, etc., ready for immediate delivery at competitive prices. Write or call for List. F. MAUND & E. BERG (SHOWCASES), LTD., 175/9 and 336 Old Street, London, E.C.1.

CLEAR OUT—your Old or Damaged Stock of Photo Goods

Why keep them any longer? Turn them into CASH.

I GIVE BEST PRICES for Old Films (damaged, fogged or expired dates); Packet Papers. Cards (any sizes), Old Photo Goods or Cameras. Bromide Papers. Plates (all sizes, all makes). Send any goods in the photo line. I buy all, good or bad. Cash per return. A good price for all Cameras. Send them along.

S. E. HACKETT, 23 July Road, Liverpool

CHEMISTS' Fittings, direct from manufacturer; soundly constructed in oak and mahogany; 8 ft. Drug Run, £18; 6 ft. Dispensing Screen, £14; 6 ft. Showcase Fronted Counter, £8 5s.; 6 ft. Wall Case, £11; 6 ft. Glass Counter, £8 15s.; Counter Case, 30 x 24 x 18, £2 5s., etc. Send now for photographs, or call and inspect. MYERS, Complete Chemist Fitters, 134a, Kingsland Road, E.2, near Shoreditch Church. Bishopsgate 2524.

GENTLEMEN, we have what you want both in newly-designed as well as reconditioned Fixtures, Drug Fittings, Dispensing Screens, Counters with Glass Fronts, All Glass Counters, Wall Cases, Silent Salesmen, Perfumery Cases and Desks, &c., to suit your Pharmacy; please call or send us your requirements. RUDDUCK & CO., 219-227 Old Street, London, E.C.1.

MAHOGANY Fittings.—10-ft. Drugfitting, 22 drawers; 8-ft. Glass Case Front Counter; 6-ft. Wall Case; 6-ft. Dispensing Screen; 6-ft. Oak Dispensing Screen; 8-ft. Oak Glass Front Counter; 10-ft. Mahogany Wall Case; all bargains. GEORGE COOK, the Working Shopfitter, 27 Macclesfield Street, City Road, E.C. Clerkenwell 5371.

WE can supply the Raw Material and an easy and simple process for the Manufacture of Saccharine. Write 218/793, Office of this Paper.

EXCHANGE COLUMN.

FOR DISPOSAL

(Articles up to the value of £5.)

A MIXER for Liquids, capacity about 12 gallons, on vertical stand, 35s. carriage forward. 218/797, Office of this Paper.

SILENT Salesman, 9 ft. 6 in. long, 2 ft. 6 in. high; all plate glass. What offers? "Chemist," 83 Barnsbury Road, N.1.

WANTED

ENLARGER, up to ½ plate, for Vertical projection. Particulars, Withers, 11 King Street, Darlaston.

SECOND-HAND Copy Small's Textbook of Botany 1929 Edition. "Chestnuts," Woodchurch, Kent.

SECOND-HAND Tablet Machine to compress sugar and cocoa into about half-ounce cubes, square or round. Z. 25 Newington Green, London, N.16.

WANTED to Purchase, Abbe Refractometer with Thermometer for liquids R.1, range 1.3 to 1.5 or 1.7; must be in good condition. 218/795, Office of this Paper.

WANTED WHOLESALE—

Scent Bottles, very beautiful designs, Powder Puffs, and Compactum Puffs, Powder blocks, all shades, and all shades of Blocks of Rouge, Opal pots for Cream, Beautiful Boxes for powder, Eyebrow Pencils, and Lipsticks.

Please send samples and lowest prices to the SHAVEX ZEE-KOL CO., 40 Blenheim Road, Upper Holloway, N.

WANTED to Purchase—Second-hand Rotary Tablet Machines; also Mixers and Sifters; forward full particulars. P.C.B. 69/22, Office of this Paper.

Price lists, trade circulars, samples, and printed matter can in no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

THE CHEMIST'S COMPACT LIBRARY

Every Book by an Expert

Pharmaceutical Formulas

(P.F. Vol. 1)

The tenth edition of this, the most complete pharmaceutical formulary in the English language, comprises (1) selected formulas from the British, United States and several other pharmacopœias; (2) unofficial formulas from hospital pharmacopœias and other sources, British, colonial and foreign; (3) known, admitted and approved remedies (218 pages) taken from previous editions of "Pharmaceutical Formulas" and from *The Chemist and Druggist* Diaries; (4) concise descriptions of practical methods of manufacture, adapted to the retail shop; (5) an Appendix comprising laws and regulations governing the sale of poisons, the hours of closing, medicine-stamp duty, the use of spirits and many other data—e.g., a solubility table and chart. This volume contains 1146 pages.

Price 15s., by post 15s. 9d.

Pharmaceutical Botany

An attractively written book, dealing with the plants mentioned in the examination syllabus of the various pharmaceutical examining bodies. Botanical terms which at first sight are forbidding in appearance are explained so that the meaning is made crystal clear. A useful gift for apprentices and assistants who have not passed the qualifying examinations.

Price 5s., by post 5s. 4d.

The Art of Dispensing

The tenth edition of this well-known work is now ready. The book has been thoroughly revised and considerably improved, while maintaining the features which have made it so popular with several generations of students. It is kept by chemists in the dispensary for ready reference in cases of difficulties arising in the course of the day's work.

Price 8s., by post 8s. 6d.

Veterinary Counter Practice

Chemists interested in veterinary practice will find the work indispensable, as it deals with the ailments of horses, cattle, sheep, pigs, dogs, and poultry, and the remedies that can be supplied. New edition 1930 (Eighth) brings this book thoroughly up to date.

Price 7s. 6d. net, by post 8s.

The Photographic Chemist

This is a concise guide to chemists commencing and carrying on a photographic department. The book is a reprint of the treatise in *The Chemist and Druggist* Diary, 1926, with additional chapters and formulas.

Price 3s. 6d., by post 3s. 8d.

Diseases and Remedies

Now in its sixth edition (March 1931). It has been carefully revised by an experienced medical practitioner and parts of the book have been rewritten.

Price 5s., by post 5s. 3d.

Wootton's Chronicles of Pharmacy

In two vols., maroon cloth, comprising 770 pages.

Price 10s. 6d. net, by post 11s. 3d.

Practical Methods of Urine Analysis

This department of chemistry is one which those behind the drug counter can profitably cultivate. The object of this book is to give chemists exactly the information they want on the subject. The book is written by a working pharmacist who is expert in the subject, and has been revised by a M.B., Lond. (Third Edition.)

Price 3s. 6d. net, by post 3s. 8d.

The Chemists' Dictionary of Medical Terms and Treatment

A small book which explains the meaning of medical terms as to which customers often inquire from chemists. In addition to concise definitions of these technical terms, notes are given on the treatment of the more important ailments.

Price 3s. 6d., by post 3s. 8d.

The C. & D. Price List Formulary, "P.L.F."

All users of the C. & D. Retail and Dispensing Price List require a copy of this Formulary. It brings together the formulas for unofficial preparations, the prices of which are quoted in the Price List. It is a choice collection of good formulas for articles in everyday request by the public.

Price 2s. 6d. post free.

Provincial Hospital

Pharmacopœias

Uniform with the "Chemists' Dictionary," contains 296 pages and consists of formulas for medical prescriptions used in twenty-two hospitals and infirmaries in Great Britain outside the London district.

Price 3s. net, by post 3s. 2d.

FOREIGN CORRESPONDENTS ARE REQUESTED TO NOTE THAT THE POSTAGE IS 2d. EXTRA FOR EACH BOOK.

May be obtained at the published prices from the Wholesale Drug or Sundries House or from :—
THE CHEMIST AND DRUGGIST, 28 ESSEX STREET, STRAND,
LONDON, W.C.2

Branch Offices : Melbourne and Sydney, Australia ; Auckland, New Zealand ;
Manchester : 49 County Buildings ; Sheffield : 54 Foster's Buildings.
Glasgow : Waterloo Street.

